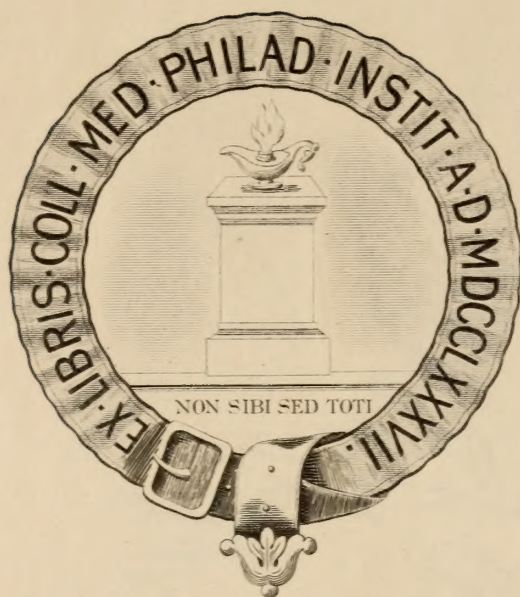




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THE MEMPHIS LANCET.

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JANUARY, 1899.

No. 1

ORIGINAL ARTICLES.

WHEN SHOULD WE OPERATE FOR APPENDICITIS?*

BY A. MORGAN CARTLEDGE.

LOUISVILLE, KY.

After a controversy that has rarely had an equal in the history of medicine, appendicitis has about passed from the domain of medicine into that of surgery. It is interesting to those who have been engaged upon one or the other sides of this controverted subject to review its history and incidentally the evolution of our knowledge of the disease.

I may claim the distinction of having been one of the earliest to buckle armor and enter the ranks as an advocate of surgical interference in most cases of appendicitis. We have arrived at a state of knowledge upon this subject that would make the early attacks and responses seem puerile indeed.

In the impetuosity and enthusiasm of youth, I thought many of these attacks of physicians were obstructions cast in the pathway of progress, and to be met by the most vigorous argument. I now think the warfare was a blessing, as in all great evolutionary strides active warfare becomes a necessity. While discussing one phase of the subject, light was turned upon another, until today we are in possession of an immense storehouse of well-classified knowledge upon this fatal malady of human beings.

* Read before Southern Surgical and Gynecological Association, Memphis, Dec. 6, 1898.

The valuable contributions to the pathology of appendicitis by Fowler, in 1893 and 1894, and the author's contribution upon the same subject (*Transactions of the Kentucky State Medical Society*, 1894) have been accepted by the profession as correct. The diagnosis with its possible errors has been frequently dwelt upon by various authors. The operative technique has reached a high degree of perfection as the result of the varied experience and contributions of surgeons. The study of the clinical history has done much to throw light upon the probable result of operative procedures when practiced at different periods of the disease. With the exception of an occasional gun from some sturdy old knight of the opium and poultice era, appendicitis has, by well-fortified arguments, come to be considered a disease to the treatment of which a surgeon should be party.

The discussion is no longer between the physician and surgeon as to whether appendicitis is a medical or surgical affection, but is between surgeons as to the time and feasibility of operation. The enthusiasm born of improved results after operation has caused this question to be lightly brushed aside by some surgeons, who have cast widespread throughout the country the simple dictum of "Operate as soon as the diagnosis is made." Now, by way of counseling moderation and care, both in assertion and action, it is necessary to observe that we are considering the treatment of a disease of manifold types and pathologic manifestations, that unfortunately we of necessity see patients for the first time in any one of several stages, and that by universal agreement operative procedures have the most varied terminations dependent upon the stage in which the operation is performed.

Again, that the advice whether hasty or wise of those in a position to authorize, will be practiced by the thousands doing only a limited amount of this work, and consequently not so competent to deal with the difficulties which so frequently arise in complicated and septic examples of appendicitis.

When we consider how great is the mortality to life in this disease, these reflections admonish us to ponder well the advice we give in dealing with this intraperitoneal monster. If my views upon all surgical subjects had undergone as many changes as those upon the treatment of appendicitis, the sum total of my knowledge would be a chirurgical kaleidoscope; and yet I feel that each change

of opinion has tended to better my appreciation of the intricacies of this subject.

To those who say operate in every case as soon as the diagnosis is made, I can only reply that I hope our technique may become so perfect as to master every obstacle that may arise at any stage of the disease, but until then I must decline, and do what I think is best for my patient. If a dozen surgeons see a patient with appendicitis in consultation, there will be little, if any, disagreement as to the best course to pursue, but let them engage in a theoretical discussion of how to treat such a patient, and they will disagree widely. The trouble is, they are thinking and talking of different conditions, each judging from his own theoretical standpoint. This would imply, and correctly so, that the personal equation enters largely into the subject. A surgeon who has, from the conditions of his practice, had to deal usually with neglected cases of suppurative appendicitis, is better able to judge of the danger of operations for appendicitis; a surgeon whose early training in this disease embraced a large per cent. of interval cases, is apt to be impressed with the safety of operations for appendicitis, and coupled with this thought is the deeper impression a neglected suppurative case produces upon his mind; hence his urgent appeal to operate as soon as the diagnosis is made. This is good advice if we could see patients when first attacked with the disease; by this I mean the first twenty-four or thirty-six hours. A surgeon seeing and operating upon a great many favorable cases is apt to be so impressed with the advantages of operation as to overlook the high mortality in the third and fourth day cases; these have been so few in his large list as not to materially do violence to his statistics. In order to correctly estimate the value and wisdom of operative measures, it is positively necessary to discriminate in regard to the stage of the disease and the condition of the patient.

We become reckless in our assertions and deductions because of our victory over the physician's position—that medicine cured more than surgery. It has about been accepted by the profession at large, that of one hundred patients with appendicitis of all varieties treated by a skillful operation, a greater number will recover than a corresponding number treated medically. The next step for surgeons to consider is the possibility of still further improving the statistics in appendicitis by declining operation in a certain per

cent. of cases and deferring it in others. My experience leads me to believe that such a course, when founded upon mature judgment, will lead to the best results. Richardson and Brewster (*Boston Medical and Surgical Journal*, July, 1898, Appendicitis — Remarks Based Upon a Personal Experience of 750 Cases, Including 150 Consecutive Cases Successfully Operated Upon in the Interval) say: "The danger of converting a localized into a general infection by operating under certain conditions ought perhaps to receive more consideration than it does. This type of case is seen most frequently on the third or fourth day, though the patient's general appearance, temperature and pulse may be good. It will be noted that an operation, even the most rapid, will be attended by an immediate constitutional depression, deep enough to excite the gravest alarm. It is idle to contend that this or that method of treating the general peritoneum will give the patient more than an inconsiderable chance. In view of the cases of similar severity and similar local signs which have recovered without operation, and which have later been subjected to the so-called interval operation, it seems to us clear that the question of interference on the third or fourth day should be most carefully considered."

In this report referred to, are 464 acute cases of appendicitis; 31 were moribund when first seen, which left 433 cases to be treated; 284 were operated upon, with 63 deaths, or a mortality of 21 per cent.; 149 acute cases recovered without operation, some of which were afterward included in the 151 consecutive cases successfully operated upon in the interval. I think we are justified in believing that after a patient has lived four days with appendicitis, the chances are better for recovery from that attack to health or a safely operable condition than if subjected to operation at a time when adhesions are imperfect and the system laboring with the effects of sepsis from a local storehouse of infection which nature will most probably render harmless in a few days.

With an improved operative technique we approach these cases with much less anxiety than formerly, but the fact remains that operation in the most experienced hands in this stage of the disease has a fatality equal, if it does not exceed, the expectant plan by medical treatment. This reasoning applies only to the attack the patient may then be suffering from. He should submit to interval operation with its safety, to guard him against subsequent damage

from the disease. I believe it is safe to assume that 98 per cent. of those who die from first attacks of appendicitis have the fulminating variety of the disease, and an operation to do any good in such cases must usually be performed within the first twenty-four hours from the onset of symptoms. In view of the fact that we possess no means of knowing in the beginning the cases which will be fulminant and those which will pursue a less dangerous course, it is the best surgery to operate upon all cases seen in this early stage. After this primary stage, the second or what may be termed the septic stage supervenes and continues a variable time, according to the nature of the lesion and its treatment; if ulcerative or so-called catarrhal, a fair degree of resolution may safely be expected in a few days; if perforative with localized peritonitis, a safely walled abscess may be looked for with an improvement in the constitutional symptoms and a condition which gives better assurance of success from operation.

The deplorable burrowing of pus in attempts at escape will not occur in the practice of watchful surgeons, who will evacuate it before such advanced secondary sepsis occurs. In the writer's opinion the usually accepted conclusions in regard to late operations in fulminating appendicitis are in great need of revision. In advising that we should operate less frequently in cases that have passed into the stage of general septic peritonitis, I plead guiltless of the charge of attempting to avoid an operative death and not giving the patient his *only chance* for recovery. I am not convinced that of 100 patients with general septic peritonitis a larger number will recover by section, irrigation and drainage than by expectant medical treatment. Of 30 such cases from various causes subjected to operation, I have had a mortality of 100 per cent.; of probably 50 others, observed without operation, I have seen two unmistakable cases recover. This statement is made with a full knowledge of the not inconsiderable number of such cases reported cured by operation, several of which I am convinced were cases of beginning general septic peritonitis, and many of which I feel equally convinced were cases of rather widely disseminated yet localized peritonitis. After an experience embracing more than a thousand abdominal sections, I am frank to say that I do not believe sufficient evidence has been adduced to cause us to believe that the peritoneal sac, when universally inflamed as the result of pathogenic

bacteria, can be cleansed, and the septic and of necessity semi-moribund patient, survive the surgical interference. That nature, assisted by stimulants and purgatives, may save at least 5 per cent. of such cases, seems reasonable. If operation is resorted to under such circumstances, a rapid removal by small incision of the gangrenous appendix, and the introduction of a small drain to attract localization, seems to promise better results than prolonged attempts at impossible irrigation of the peritoneal sac. Where possible, the operation should be done with local anesthesia, and immediate and vigorous purgation instituted.

Conclusion 1. Probably 98 per cent. of the patients who die of acute appendicitis without operation, have the fulminating variety of the disease; operation to be of service must be done in the first twenty-four hours—better the first twelve.

Conclusion 2. In view of the fact that we have no means of knowing the probable course of a given attack of appendicitis, operation when possible should be performed within the first twenty-four hours after the onset of symptoms.

Conclusion 3. Patients seen after the third day should not be operated upon until after the attack, or until purulent formations, if such take place, have been walled off, and the patient practically rid of general sepsis. The exception to this rule is the rupture of an appendicial abscess into the peritoneal cavity (a very rare accident), when abdominal section should be immediately performed.

Conclusion 4. Probably as many patients recover from general septic peritonitis by stimulants and purgatives as do by operations. In either event, if it is a case of true general septic peritonitis, the mortality will not be far from 95 per cent.

Contributions to medical literature would indicate that there is a sad need on the part of the profession of more definite views as to the nature of this disease. If operated upon at all, no attempt at general cleaning of the cavity should be practiced; quickly assist nature to take care of the desperate patient by removing the source of the fire; to do more is to add the shock of an unbearable operation to an already nearly exhausted vitality.

Conclusion 5. Subject to interval operations patients who have suffered an unmistakable attack of the disease.

Conclusion 6. Don't operate too soon after a severe attack with many adhesions; the operation will be greatly simplified by wait-

ing a few weeks longer; in the meantime keep the patient upon light diet and little exercise. Patients do not usually have a recurrence until the adhesions or splints have been removed by absorption. The mortality from interval operations should not be more than 1 per cent.

PERITONSILLITIS OR QUINSY—CAUSE AND TREATMENT.*

BY J. A. STUCKY, M.D.
LEXINGTON, KY.

In presenting a paper on this subject, my object is to call forth a discussion of the etiology and treatment of a disease that is of as much, if not more, interest to the general practitioner than the specialist, inasmuch, except in complicated cases, or perhaps where surgical interference is necessary for the immediate relief of the sufferer, the former is more frequently consulted than the latter.

I shall not weary you with the list of symptoms or remedies; the former are well known and unmistakable, the latter innumerable. Perhaps every practitioner has his favorite or "hobby" prescription for the relief of this painful but fortunately not often serious trouble. The following questions I desire to present for consideration and discussion by the members of this Society:

1. What is the cause of quinsy?
2. What is the best treatment for it?

It may be well just here to define what I mean by quinsy—an old-time name for an old-time disease. I believe quinsy to be an inflammation of the peritonsillar tissue, not in any respect a tonsillitis, and seldom due to disease of this organ.

Coulter says: "A glance at the comparative anatomy of the parts will add to this etiological theory. None of the muscular fibers of the palato-glossus or palato-pharyngei enter into the body of the tonsil, or anastomose with each other until they have passed below the triangular space occupied by the tonsil. This latter occupies practically about the same relation to its surroundings as does the eye to the orbit, though much less intimate. Undoubtedly

* Read before Mississippi Valley Medical Association, Nashville, October, 1898.

the lymphatics are most important etiologically. If these anastomosed to any great extent with the lateral and posterior pharynx, we might expect an infection in the tonsil would often be conveyed to the peritonsillar tissues. Or if the action of the tonsillar lymphatics were absorptive rather than expulsive, the bacteria or microorganisms would more likely be lodged deep in the plexus within near the carotid artery, and a phlegmonous condition result. The comparative absence of these evidences would indicate that either the lymphatics in the so-called 'lymphoid ring' are not very ready bearers of bacilli, or else the intimate connection, spoken of by some authorities, between the lymphoid tissues and the base of the tongue, between the pillars and in the vault of the pharynx, is an imaginary one. Some claim that the normal secretion of the tonsil is one of nature's antiseptics, a leukocyte guard destroying every microbial intruder; but if the leukocytes be absent for any cause, or the lacunæ in a diseased condition, it is then but an open viaduct into the system, provided this intimate relationship between the lymphatics and the deeper tissues really exists. Where the pillars overlap the tonsil, there may be a pseudo-continuity of tissue formed, but such a condition is pathological.

"If a normal and anatomic relation exists between the pillar and the tonsil, the latter will not appear as an etiological factor in the production of peritonsillar abscess or quinsy. If pyogenic germs be pent in by an overlaying pillar and thus forced into the surrounding areolar tissue, we may expect quinsy as a result. Doubtless many recurrent attacks are due to this cause in a measure.

"Frequently, on account of the inflammation and edema, the tonsil is protruded, but seldom is it involved in the inflammatory process, and in most cases the origin of the disease is in the peritonsillar areolar tissue. If there existed a more intimate continuity of tissue between the tonsils and the surrounding areolar tissue we might expect from these bacterial traps a very frequent infection and consequent quinsy. Hence the arguments—the tonsils, even though pathological, may be in a measure a preventive rather than a cause of quinsy."

Bosworth says: "An acute tonsillitis does not and cannot develop a quinsy without some particular predisposing cause, or dyscrasia."

With the anatomic relation of the tonsils in mind, and the most

probable theory of the cause of the disease being that of a specific bacteria, the exact nature of which remains to be discovered, we give as our definition of quinsy: An acute inflammatory action in the peritonsillar areolar tissue usually resulting in suppuration, adding, by way of emphasis, that tonsillitis and quinsy are in no way identical, as five of the prominent symptoms of the latter are practically not manifested in acute attacks of the former, namely: (1) Temperature not so high; (2) not so much of a sensation of foreign body in the throat; (3) no great difficulty in swallowing; (4) no inability to expectorate; (5) no difficulty in opening the mouth.

Of ten authors consulted during the preparation of this paper, McKenzie, Bosworth, Browne, Ingals, Schech, Cohen, Bishop, Burnett, Sajous and Coulter, seven, after citing hereditary predisposition, exposure, etc., mention rheumatism and gout as the most prolific causes. What the specific bacteria is, and how and where it enters the body and develops a peritonsillar inflammation and suppuration, is as yet unknown. The authors referred to as favoring the theory of rheumatism or lithemic diathesis, have not done so very recently, and the present concensus of opinion now is, that the cause, as stated above, is a specific bacteria. Close observation and some careful testing in selected cases has convinced me that the rheumatic, or more probably the uric acid diathesis, has more to do with the causation or predisposition to this than any other factor. Anti-rheumatic and anti-lithemic afford the most satisfactory relief of any systemic remedies we have.

Treatment. Can quinsy be aborted? is a question that frequently presents itself. If seen within the forty-eight hours after the first onset of the disease, I believe the majority of cases can be aborted to such an extent that suppuration will not take place. When first seen, and being sure of the diagnosis, my plan for the past three years has been to give the following treatment, and the results have been so gratifying that I offer it with no small degree of confidence. Unless there are contra-indications for its use, five or ten grains each of calomel and salol are given, and followed in six hours by a saline cathartic, as nothing is more essential in the beginning of the treatment than thoroughly emptying the alimentary canal and arousing torpid secretory functions. This being accomplished, lactophenin given in combination with protonuclein I

regard as the very best of remedies for relieving the discomfort and pain, and aborting or greatly ameliorating the progress of the inflammatory process. The first of these remedies (lactophenin) is superior to phenacetin, in that it is less a depressant, more strongly analgesic, and soporific in its action. The second (protonuclein) increases the number of leukocytes, thus increasing the resistance to pathogenic germs. When given in large doses it acts as a stimulant, quickening the pulse, producing flushed face, fullness in head, etc. For an adult, seven and one-half to ten grains of lactophenin and three to five grains of protonuclein is given in a powder every two to four hours until all pain is relieved and the temperature becomes normal. The second powder, taken two hours after the first, usually affords such marked relief that a dose taken every four hours afterward keeps the patient comfortable. In addition to this, lithia water is given freely (five grains in a glass of water four times a day) for several months after the patient has recovered from the acute inflammatory trouble.

The local treatment, I think, amounts to very little; a hot alkaline gargle containing twenty-five per cent. of pasteurine, listerine or hydrogen peroxide, used frequently, keeps the mouth clean and sweet and has a happy psychological effect. If the tonsils are enlarged, and follicles blocked up with secretory and inflammatory products, clean them out with probe and well-directed spray of antiseptic solution from atomizer with tip that throws the spray laterally. If deglutition is very painful, nothing affords such great relief as an application of ten per cent. each (in aqueous solution) of cocain and resorcin, applied by means of camel's hair brush or cotton covered probe, to the pillars of the fauces. This can be repeated as necessary, though never oftener than every two hours, even in aggravated cases.

Scarification of the parts is mentioned only to be condemned. I believe it productive of more harm than good, and it opens the way for new and increased infection. If tension is great it is best relieved by puncturing the tense sheath separating the tonsil from the peritonsillar areolar tissue. The point selected for this purpose is near the junction of the anterior and posterior pillars of the fauces. I strongly advocate an early and free puncture—just as soon as there is marked distension, in order to relieve the pain and stop the destructive process of suppuration. For this purpose I

never use a knife, but a modification of an ear spoon, first described, I believe, by Spier, and illustrated in Tiemann's catalogue of 1879.



Spier's Modified Ear Spoon, used to open peritonsillar abscesses.

The instrument is much longer and has more of a cutting (dull) edge at the point. It is inserted between the tonsil and anterior pillar near its junction with the posterior, and pushed back (laterally) until the tense sheath separating from the peritonsillar tissue is felt. It is then pushed through this, and if there be pus it is seen in the spiral groove of the extremity of the instrument, and the membrane torn sufficiently to give free exit and drainage. I rarely find it necessary to use any instrument but the one mentioned. The one which is here shown was made for me by Tiemann in 1892.

HYSTERICAL ERUCTATIONS; ARTHRITIS DEFORMANS WITH HYSTERIA; DOUBLE AORTIC DISEASE.

A CLINICAL LECTURE

BY H. A. HARE, M.D.

PHILADELPHIA.

Professor of Therapeutics in the Jefferson Medical College; Physician to
the Jefferson Hospital.

Gentlemen—The first case that I show you is that of a young woman of 19, who comes to us complaining of constant eructations which, as you will notice, are not true eructations, nor are they true hiccoughs. On the contrary, the spasmodic movement seems to be as sudden as a hiccough and yet of the character of an eructation, but no gas is brought up with each movement as it would be in true belching.

A careful examination of the patient fails to reveal any organic disease or any history of indigestion which could account for this symptom. You will notice that her facial expression is somewhat hysterical, and that she appears to be somewhat anemic and suffering from general debility, and inquiry elicits the fact that she is an overworked girl. Now, in these cases, medicines are not particu-

larly valuable, except in so far as they can be used in improving her general condition. Small quantities of iron and arsenic would be useful for her anemia, but far more important in the way of remedial agents will be an abundance of fresh air and exercise, the latter being carried to the point of marked fatigue, and equally important—the employment of hydrotherapeutic measures.

You will remember that I have tried to impress upon you a number of times in my didactic lectures that drugs should never be employed if external therapeutic agents will do the patient as much good, and this is typically a case in which properly applied hydrotherapy cannot fail to bring to us the curative effects which we seek. The great difficulty in the application of hydrotherapy is the fact that it cannot be readily employed in the patient's home, and that its best results can only be obtained in a hydrotherapeutic institute. If this patient had the means to go to such an institute, that would be the prescription which we would give her, but as she has not this means, we will direct that she shall, as far as possible, carry out a water treatment in her own home. We will instruct her mother to strip the girl, wrap her in a sheet while she stands in the center of a large tub which contains two or three inches of warm water about her feet, and then to dash against her spine and chest several quarts of water at a temperature of about 60°. Immediately after this the sheet, which is only placed about the patient for modesty's sake, is stripped off her, and she is rubbed down with a rough towel with sufficient violence to complete the reaction following the cold dash, and to make her entire surface flush with blood. It may be advisable, after she has used these douches for a number of days, to use water at even a lower temperature than I have named. On the other hand, if it is found that these douches chill her because she has not the power of reaction, it may be necessary at first to use warm water, or to use alternate dashes of hot and cold water. This bath, which may be repeated night and morning immediately on rising and just before going to bed, should not last over half a minute to a minute, and it is important that the water should be thrown against her body with so much force as to produce an effect by reason of its impact as well as by its temperature.

Another important point in the case is to impress upon the patient that she has no organic disease, and that this difficulty will

speedily pass away, for you will find that in the treatment of these hysterical cases the support of the patient by a stronger will than her own will have much to do toward relieving her condition, and if you can impress upon her the fact that she will wake up on a certain morning entirely free from this complaint, you may be able to produce so powerful a mental effect that on that morning your promise will be carried out. It is necessary, of course, before you attempt this, that you have the confidence of the patient, so that she will believe implicitly everything that you tell her.

There are two points in the diagnosis of this case which have not been completed, but which will be valuable as proving that the diagnosis of hysterical eructation is correct. The first of these will be to study the condition of the sensibility of her skin in regard to localized anesthetics; and the second, and more important, would be an examination of her color fields by a competent ophthalmologist, for as you know, the color fields are often markedly changed in area, and when these changes are present, afford us very important diagnostic data.

The second patient is one of even greater interest than the first. It is that of a woman of 45, the mother of ten children, who has had, up to within a few years, a very good personal history, for all her children have grown up with the exception of one that died of croup, and she has only had two miscarriages. Her last child was born in 1893, and prior to its birth she had a good deal of trouble with her lower extremities, this trouble consisting in swelling and pain in the ankles and feet. After the birth of this child, however, these symptoms disappeared. A year or eighteen months ago she began to notice that her ankles and knees were stiff, and that her fingers were moved with difficulty. This condition has gradually increased until at the present time she is absolutely bed-ridden. The position she occupies in bed is quite characteristic, the legs being flexed on the thighs and the thighs on the trunk. Both limbs are a little deflected, as you will notice, toward the right side. Her hands are very much emaciated, and the right hand is one of the best types of the so-called seal-fin hand that I have ever seen. You will notice that this deformity consists not in the deflection of the entire hand at the wrist joint toward the ulnar side of the arm, but that the deflection takes place where the fingers join the hand. That this is an abnormal position you can prove to

yourselves by attempting to direct all of the fingers of the hand in the direction of the little finger, when you will find that this motion is impossible, and that the hand can only be turned toward the ulnar side of the forearm by a wrist movement. The left hand has this seal-fin deformity to a less marked degree, but is twisted out of shape a good deal, as you will notice.

I now wish you to notice the extraordinary degree of muscular atrophy from which she is suffering. Her forearms and arms are so thin that they seem to consist almost solely of skin and bone, and the lower extremities are equally wasted. On an examination of her knee, elbow and finger joints you will notice that the deformities are not due to gout, as there are no deposits of urate of sodium in the tissues surrounding the joints. You will also notice that there are no exostoses on the one hand or absorption of bone surfaces on the other, which often produce such deformities in arthritis deformans; and again, you can see that in the case of the muscles of the thigh, at least, some of them are tense and become still more rigid when I make any attempt to straighten out the leg. The small amount of movement which I can produce in the joint does not reveal any crepitus or any sensation indicating that the articular surfaces are seriously diseased.

That the joint changes in this case are not those of locomotor ataxia is shown by the fact that they are entirely different from the arthritic conditions of that malady; then again, locomotor ataxia is a comparatively rare disease in women, and then, finally, as you know, it is in about 85 per cent. of cases at least due to late syphilis, and that this woman is not syphilitic seems to be proved by her history and the fact that she has given birth to so many healthy children.

The possibility of this case being one of gout is decreased over and above the points that I have already named to you by the fact that the larger joints are involved instead of the smaller ones, by the absence of any gouty history in herself or in her family, and by the absence of the gouty deposits that I have already named about the joints or in the ears.

We come, therefore, to a consideration of whether the case is one of rheumatoid arthritis, and I think that we can decide that it is such, although I believe that it is complicated with a distinct hysterical element. You will notice that her facial expression is

distinctly hysterical. You have also noticed that her thighs are flexed upon the body and the legs upon the thighs and her knee joints are apparently fixed, but when I grasp the thigh with one hand and the ankle with the other and move the leg upon the thigh, I find that there is no marked change in the joint surfaces, and that the freedom of movement of the joint is not impaired by reason of any arthritic change, but owing to the fact that the muscles in the back of thigh are so tense that as soon as the extension is attempted they lock the joint. These muscular contractures are, it seems to me, more indicative of hysteria than of any other condition, although the great muscular wasting, which is everywhere present, is not so indicative, for you will remember that great muscular wasting very frequently is associated with grave changes in the joints without there being any direct disease of the muscles themselves. In other words, it would seem as if the nutrition of the muscles was altered by reflex influences.

The third case that I wish to show you is that of a man of 50, who has given the world a good many hard raps, and who has been given a good many hard raps by the world. He has used alcohol to excess, and although he is now married and has one living child, he has, in his earlier days, suffered from a specific lesion. He comes to the hospital complaining of great shortness of breath and dyspnea on exertion. He is also very hoarse indeed. His vessels are markedly atheromatous, he has a marked thrill in the supraclavicular fossa of the right side, and the examination of his heart reveals the fact that he has a loud double aortic murmur. The hoarse voice, the dyspnea and the harsh murmur, which is to be heard at the second right costal cartilage, naturally would make you at least think of the possibility of there being an aneurism present, particularly in view of his history of having used alcohol to excess, and having suffered from syphilis. An examination of his larynx by the laryngological department shows that he has paralysis of both vocal chords. I have, however, gone over his case very carefully, and am unable to discover any signs of thoracic aneurism. His pupils are equal; there is no unilateral sweating or flushing of the face; there is no true aneurismal bruit anteriorly or posteriorly. He has, however, a very typical water-hammer or Corrigan pulse, which is marked even when his arm is lying by his side on the bed, and which becomes more marked when the wrist is elevated above his head.

I now draw my nail sharply across his forehead, and you will note that the red mark which is so produced changes its appearance with each beat of the heart. In other words, he has marked capillary pulsation, more marked than I remember to have seen it in any case. On pressing a microscope on the lower portion of his lower lip this capillary pulsation can be seen quite readily, and these symptoms of course confirm our diagnosis that he has an aortic regurgitant murmur. His aortic obstruction murmur is transmitted up to the great vessels of the neck and into the subclavian artery, and there is one other point about his case which is of more than usual interest, namely, that a loud systolic murmur can be heard not only over the heart, but in the axillary and brachial arteries, and even in the popliteal artery.

This is the first case in which I have ever been able to hear a murmur in the peripheral blood vessels which I thought arose in the heart, although sometimes you can, by proper placing of the stethoscope over the artery in such a way as partially to occlude it, produce an arterial hum. I remember once reading the paper of an English physician, in which he claimed to have heard a loud obstructive murmur over the dorsalis pedis artery, and I have often wondered whether this was not a grim joke on his part.

Whether this man has an aneurism which we cannot discover, or whether my diagnosis is correct, the treatment in either case is identical. He will be put in bed at absolute rest, so as to enable his heart to gain all the strength it can, and he will be given iodide of potassium in ascending doses because of his specific history, because of his atheromatous condition, and because, if he has aneurism, this is the best remedy which we can prescribe for him.

222 South 15th street.

UNGUENTUM HYDRARGYRI OR BLUE OINTMENT ADMINISTERED BY THE MOUTH.*

BY ALBERT BERNHEIM, A.M., M.D.

PADUCAH, KY.

It is not the purpose of this paper to speak of the value of blue ointment *per se* in the treatment of cases of syphilis; there is no doubt about its great and quick efficacy, especially where an immediate result is desired. In general, blue ointment has always been used by the method of inunction; but very often this method of administration is disliked by the patient on account of its nastiness and incommodity. If we can substitute another method of using blue ointment with the same good and prompt results, I think it would be of no small advantage, particularly in private practice, when the patient likes to be as undisturbed as possible.

It was Dr. Anuschat, a German physician,¹ who, in 1896, recommended the internal administration of blue ointment. He, among others, recognized that the efficacy of blue ointment depends upon the evaporation of the metallic mercury. I know very well that not all the investigators agree as to the manner of action of the blue ointment. On the one side the authors assert that the globules of the metallic mercury are acted upon by the secretion of the skin glands, and are converted into a soluble preparation, that is taken up by the lymph and blood, but at the same time they do not admit that mercury acts by evaporation; others, again, admit the evaporation, but do not attach any value to it. On the other side, many again believe in the action of metallic mercury by its evaporation. It is very difficult to come to an absolute certainty in this respect.

We have reports of cases of people who lived in the same room with patients who used blue ointment by inunction, and who were affected by salivation; thus this would show that the mercury evaporated from the skin of the patients caused the salivation.

* Read before the Mississippi Valley Medical Association, Twenty-fourth Annual Meeting, Nashville, Tenn., October 11 to 14, 1898.

Very often we found that the inunction of blue ointment had not much effect upon syphilitic patients. Upon more exact analysis of these cases we found that the patients, from too great a sense of cleanliness, washed the ointment off as soon as it was rubbed in; doing so, they removed every chance of evaporation, and the remedy did not exhibit the good effect shown by others who did not wash it off. Many doctors therefore make it a point not to allow the syphilitic patients to take a bath more than once a week. If you make an experiment by covering the inuncted parts of the body by means of an impermeable cloth you will not have the good effects of mercury either. That mercury, by evaporation, might do much harm, you all know from experiences of the working men in the looking-glass factories, and that this harm is but prevented by keeping mouth and teeth clean.

Dr. Anuschat shows that mercury, if completely extinguished by means of a fat and administered by the mouth, will be divided so minutely by the emulsifying action of the bile that when absorbed by the gut, and after having reached the circulating blood, it manifests its efficacy in the shape of vapor. He shows furthermore that the value of the method depends upon a sufficient quantity of fat being introduced into the bowels in order to secure an efficient emulsion.

The German Pharmacopœia no longer uses lard, but lanolin, in the manufacture of blue ointment, and I think this is a very great improvement. Lanolin is certainly one of the best constituents for any ointment.

Dr. Anuschat gives generally a pill mass of pure metallic mercury, 75 grains; lanolin, 150 grains, to be well triturated as perfectly and exactly as possible, adds some of radix althææ, and makes one hundred pills. Each pill contains $\frac{3}{4}$ of a grain of mercury, which corresponds to a cutaneous inunction of about 45 grains of blue ointment. He gives twice a day one pill; in severe cases he increases the dose to two pills two or three times a day. He makes it a point to give simultaneously much fat and alcohol, particularly the former.

Another German physician, Dr. L. Silberstein,² followed these directions, by prescribing the mass in the following formula: Unguenti lanolini hydrargyri cinerei (Ph. G.), $67\frac{1}{2}$ grains; licorice powder, 75 grains; glycerin, 5 drops; mucilage enough to make a mass for 60 pills. S. Two pills twice a day. Each pill of this

contains $\frac{3}{8}$ of a grain of mercury, two pills being equal to $\frac{3}{4}$ of a grain, that of Dr. Anuschat. Dr. Silberstein reports fifty cases treated by this method and is very much pleased with it.

The unpleasant effects that might be occasioned by any mercurial treatment are surely not greater nor more frequent, on the contrary, rather smaller and rarer by this method. As a matter of course, mouth and teeth have to be cleaned thoroughly, indeed, the patient must use his or her tooth brush after each meal. Dr. Silberstein has seen such good results that he had hardly had any occasion to give a gargle.

Colics or dysentery, that may follow mercury, are prevented by taking care that the patient has a regular action of the bowels every day. If necessary, give a teaspoonful of castor oil, which usually removes any trouble of this kind, possibly improving the emulsion.

This may not be the time to extol this method as *the* treatment, and I can only add three cases, in which I used the administration of blue ointment by the mouth. But even these three cases would induce me, if occasion allows, to treat syphilis in this manner again.

CASE I. Man, 32 years of age, was infected several years ago; ulcers on his tongue and tonsils; exanthema on forehead, psoriasis plantæ manus.

Ordination: One pill twice a day. All the symptoms have disappeared after a term of five weeks.

This patient said to me three months later that he never had a quicker working and more pleasant medicine to take than this pill.

CASE II. Woman; indurated ulcer on left labium majus; ulcer in the groin; plaques on tongue, palate, tonsils; corona veneraria; infection three months ago.

Ordination: Two pills twice a day; improvement within three weeks. Interval in the treatment. Again, two pills twice a day. Symptoms completely disappeared seven weeks after the beginning of treatment.

A third case is just now under my treatment and improving.

In the meantime I have treated two other cases after the same method. A case of a woman that showed ulcers of the skin on different parts of the body, especially on the legs (knee and tibia). The other case was in a young child afflicted by congenital lues. The two cases yielded readily, and quick improvement followed. The symptoms disappeared.

The blue ointment I used was the U. S. Pharmacopœia Ointment, but of $33\frac{1}{3}$ per cent. I had the pills prepared by adding licorice

powder, and gave them in capsules. I found the best time for taking the capsules about one hour or a little more after meals. I did this, thinking that the capsules are thus carried earlier to the duodenum, so that they come in contact with the bile about the second or third hour after the meal, when the secretion of the duodenal juice and of the bile is at its best.

In the meantime I induced Parke, Davis & Co., Detroit, to make a pill after a prescription that I thought of great advantage. This pill, some samples of which I take occasion to exhibit before you, contains $\frac{3}{8}$ of a grain of metallic mercury, $\frac{3}{4}$ of a grain of lanolin, and 1 grain of purified ox gall; this pill has the regular enteric coating and is only dissolved in the duodenum in contact with an alkaline fluid and bile. As a matter of course, the more exact and minute the division of the mercury is, the better the ointment.

Parke, Davis & Co. wrote me, "We observed your instruction to triturate the mercury with lanolin until all evidence of globules of metallic mercury disappeared." And indeed, if you bring one of their pills under the microscope and compare it to the common blue ointment, prepared of lard, under the microscope, the difference between the two preparations will strike you at once; you will find relatively large globules of metallic mercury in the lard-blue ointment, while you hardly, and with difficulty, find evidence of the mercury in the well triturated lanolin-blue ointment.

I know very well that the human body is no chemical laboratory, nor the gut a test tube, but anyhow I made some rough experiments, giving a conception of the advisability to have the pills remain undissolved in the stomach. Many drugs, among them mercury, produce a better effect if not dissolved in the stomach, but only after having passed it, and that quite especially if given in fatty substances, and particularly this enteric pill "does not knock the stomach out," according to the wording of one of my patients, as he found "that red mercuric iodide does." I made some experiments about the solution and emulsion of this mercurial pill.

1. A liquid similar to the gastric juice; it is water with hydrochloric acid and pepsin. The pill I refer to is not dissolved, and even without the coating, blue ointment is not changed by it.

2. A liquid similar to the alkaline juice of the duodenum: water with pancreatin. It dissolves readily the coating of the pill, changes the pill and emulsifies it.

3. Another liquid contains ox gall alone, and (4) contains ox gall and pancreatin. The mercurial pill is dissolved also and emulsified.

5. I still made another experiment, introducing a fatty acid into the liquid, and that in shape of chocolate, the Hauswaldt Vigor Chocolate, and

6. Experiment with codliver oil. These last two experiments show the best and most thorough emulsion.

As Dr. Anuschat already made it a point to give simultaneously fatty substances, I reckon it would be a good thing to give codliver oil; but you know, gentlemen, how little the patients like codliver oil; and a surrogate for codliver oil, nay, not a surrogate, but a much better and more pleasant nourishment we find in the Hauswaldt Vigor Chocolate.³ Two members of this Mississippi Valley Medical Association, Dr. Thomas Hunt Stucky,⁴ of Louisville, and Dr. I. N. Love,⁵ of St. Louis, recommended the chocolate. I have prescribed Vigor chocolate in many cases of adults as well as children, of men as well as women. If you eat some of the common chocolate, very soon you get tired of it, and so does your alimentary tract. This is not the case by any means with this special preparation of Vigor chocolate. It is prepared by addition of fatty acid to the cocoa. I had patients who ate this chocolate for weeks and weeks, and that in a dose quite impossible with other preparations of cocoa. Even children are able to eat Vigor chocolate as much as half pound a day.

In cases of syphilis, where we intend to give blue ointment by the mouth, this chocolate might serve a double purpose. First, it helps the emulsion of the blue ointment better than anything else, and thus the mercury will have a greater effect; and second, I have found Vigor chocolate of great benefit in cases of anemia, and this condition we always meet in cases of lues.

The time has passed where the physicians thought and taught the best method of killing the syphilitic infection was the starving of the unfortunate patient. At the present time the physicians make it their duty to keep up the strength of the patients in any case, and especially in the individual afflicted by lues. In no country of the world, I believe, people demand more, to get not only a good medicine but what they regard even as higher, a slightly and pleasant medicine, than in this country. If we can furnish it without interfering with the good effects of the remedy, why should

we not do it? These pills (some of them I took myself for experiment's sake) don't disturb the stomach nor the bowels, and the chocolate is as good, I really believe better, than any other kind of candy. The prices of the pills as well as of the chocolate, are certainly not higher than other remedies for that disease.

Aside from my subject proper, I should heartily advise the substitution of another fat for the blue ointment for the lard. Lanolin is excellent for this use, and only a little more expensive. But quite especially in this country, we have a preparation that is exceedingly well adapted to the manufacturing of blue ointment, namely, the purest American vaseline. Some years ago I used a blue ointment prepared with the so-called vasogen,⁶ that is, purest vaseline impregnated with oxygen. It is very easily absorbable, can be rubbed into the skin in double the common dose, in half of the time necessary for the same dose of blue ointment.

I have had no occasion to administer this vasogen preparation by the mouth, but I would try it if I could get hold of it.

The purpose of my paper was to induce you, gentlemen, to try this method of treating lues, and I hope you, as well as the patient, will be pleased with it, for I can say of this method that which we demand of a treatment, that it ought to cure—*jucunde, cito et tute*—pleasantly, quickly, and safely.

Literature.

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 3. Ibidem, 1896, p. 345.
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MULTIPLE HEPATIC ABSCESES AS A SEQUEL TO TYPHOID FEVER.*

BY M. B. HERMAN, M.D.

MEMPHIS, TENN.

J. D., aged 26, single, fireman, strong, robust constitution, always enjoyed good health. He was a hard drinker up to two years ago, and since then has drunk moderately, principally beer. He took to bed on July 23, 1898, after about one week's malaise. I saw him on the following day; he complained of chilly sensations, nausea, anorexia, frontal headache, slight vomiting, pains in the limbs and constipation. His tongue was dry and coated brown; temperature $101\frac{4}{5}^{\circ}$. At the end of the first week temperature had reached $103\frac{2}{5}^{\circ}$, and at the end of the second week had risen to $104\frac{2}{5}^{\circ}$, rose-colored spots appearing over the abdomen and chest. Stools were frequent and had to be checked; there was more or less tympanites and a persistent slight cough. Frequent examinations of the chest revealed nothing abnormal. This condition continued for three weeks, when the temperature began to decline until the end of the fourth week, when it was 99° in the morning and 100° in the evening, remaining stationary for three days.

On the morning of the thirty-third day of his illness, the patient was seized with a chill and severe lancinating pain in his right side, with difficulty of breathing; temperature 102° , pulse 110. The chill, pain and rise in temperature suggested pleurisy or pneumonia, but on careful examination of the chest, I found that the physical signs of both of these complications were entirely wanting. On palpating the liver, I found it enlarged and tender. I ordered a dose of calomel and an icebag locally, which was kept applied for three days. In the meantime the patient continued to have rigors and sweats. I then explored the liver with an aspirator and found pus in the axillary line at the eighth interspace. The next day I resected the ninth rib, and evacuated about six ounces of chocolate-colored pus. The cavity was washed out with sterilized water, and a large drainage tube inserted, with gauze packing. The next day the temperature dropped to $98\frac{3}{5}^{\circ}$, pulse 80, and patient expressed himself as feeling much relieved. His appetite improved, and he gained in strength.

Ten days after the operation he again began to have rigors, rise in temperature and sweats, and I felt satisfied that there was more pus somewhere in the liver. I again had him anesthetized, removed the tubes and explored the cavity with my finger, and in doing so perforated the wall of another abscess, which was also evacuated and washed out, and a drainage tube carried into its cavity with additional packing around the tube. It discharged freely for several days, when it gradually diminished. The patient again gained in strength and was able to sit up; the tube was gradually shortened, and at the end of the third week after the second operation was performed the wound had nearly closed, leaving a biliary fistula discharging pure bile. Again fever, rigors and sweats appeared, and it was evident that another abscess had formed in some part of the liver. I suggested another exploration, but it was declined by the patient, and the next day I was notified to discontinue my visits, that another physi-

* Read before the Tri-State Medical Association, Memphis, Dec. 20, 1898.

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cian had been called in who, after a "very careful examination," promptly condemned the operative interference, saying that it was an unwarranted procedure, and that the patient was simply suffering from a "little liver trouble."

After several days treatment of the "little liver trouble" the attendant informed the family that the patient would have to be removed to the hospital to undergo another operation, which the family declined to do, and asked him to discontinue his visits.

Ten days had elapsed since my last visit when I was again summoned to the poor fellow's bedside, but I positively declined to go, until the patient's brother called at my residence and insisted on my going with him or promising him that I would call and operate. I yielded and went. The unfortunate man was now suffering from profound sepsis; temperature 104° ; pulse 146 and feeble; tongue dry and thickly coated; he was delirious and sweating profusely. I informed the family that the man was dying, and in no condition to undergo any further surgical operation. He died.

I am well aware that it is not always easy to diagnose a hepatic abscess, and that cases of abscess of the liver have been treated for typhoid fever, and the mistake not discovered until the autopsy revealed the true cause of the fever. In this case, however, we had two distinct phases in the symptomatology.

A suppurative hepatitis is, as far as I can ascertain from literature at hand, a very rare complication or sequel of typhoid fever. Textbooks mention it, but I failed to find any cases reported.

Both phases in this case were typical, and there is no doubt in my mind that the supervening abscesses were secondary to the typhoid attack, and due to metastasis from the typhoid ulcers in the intestines. The case was of great interest to me, and would have proved more so had I been able to make an autopsy.

Hepatic abscess is like an abscess elsewhere, and once located, it matters not in which lobe or part of the lobe it be situated, or its depths within the organ, we should boldly enter its cavity and evacuate the pus, using such technique as may be indicated in any particular case. As soon as we feel sure that we have to deal with a suppurative hepatitis we should not temporize. Local applications of iodine, poultices, blisters, etc., are a mere loss of time, while rapid destruction of the organ is taking place and the patient losing strength.

An accession of rigors, sharp pain, rise in temperature, sweats, with tumefaction of the liver and negative physical signs in the chest, make the diagnosis of hepatic abscess fairly certain, and with the use of the aspirator, a positive diagnosis can be made. In using the aspirator, it should first be sterilized, and the patient should be anesthetized. The field to be explored should be thor-

oughly scrubbed with green soap and water, then rubbed with ether or alcohol and a 1 in 1000 bichloride solution. Before anesthetizing the patient, it is well to ascertain the most tender point over the organ. The aspirator should be boldly thrust into the liver, and aspiration performed as the needle is being slowly withdrawn. A number of these punctures can be made until the abscess is located without the slightest harm. Should we fail to locate the trouble, the procedure should be repeated in two or three days, and if successful, incise at once, resecting one or two ribs if necessary. A drainage tube of good size should be inserted and fastened to a strip of adhesive plaster by a suture, so as to insure good drainage and facilitate irrigation if necessary. As a rule, I do not irrigate these abscess cavities, unless there is a rise in temperature or the discharge becomes fetid.

Masonic Temple.

THE USE AND ABUSE OF NORMAL SALT SOLUTION.*

BY J. WESLEY BOVÉE, M.D.

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Inasmuch as the employment of normal salt solution has become so universal, has proven so valuable and has been to some extent abused, we have felt constrained to present this paper, hoping by it to induce a free interchange of opinions on the subject.

The term "normal salt solution" has been used interchangeably with artificial serum. Various compositions and strengths of the constituent elements of the blood have been used with the name—normal salt solution. According to Kirke's Handbook of Physiology, salt exists in the blood plasma in the proportion of 5.546 parts per 1000, and .6 per cent. is a good practical formula. Other ingredients, e. g., egg albumen, have been added to the salt, which really makes an artificial serum instead of normal salt solution.

Blood transfusion, dating back to ancient Egyptian history, was the forerunner of the employment of normal salt solution, the change being made because of the inconveniences of the former. Thomas Latta, inspired by the chemical researches of O'Shaugh-

* Author's abstract of a paper read at meeting of the Southern Surgical and Gynecological Association, Memphis, Tenn., Dec. 6, 7, and 8, 1898.

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nessy, injected salt solution into the veins of his patients. In 1855 cholera was treated by intravenous infusion of salt solution. The fluid recommended by Little for the treatment of this disease was composed of sodium chloride, 50 grains, potassium chloride, 3 grains, sodium sulphate and sodium carbonate of each, 2 grains, and water, 1 pint; alcohol was in some instances added to these preparations. Today, many surgeons use normal salt solution for nearly all purposes of irrigation and in various other fields, while physicians find many indications for its use. Peaslee used it forty years ago in ovariectomy work. In 1879, Bizzozzero and Golgi injected it into the peritoneal cavity for various forms of hemorrhage, but this plan fell into disuse after some brilliant results and some grave complications. In 1888, Dastre and Loyer studied its effects on the general physiology of the lower animals, and later recommended it in infectious diseases.

Of the five different routes through which it is introduced, the intra-arterial, suggested by Dawbarn, is considered unsafe in all conditions, and should not be practiced. The subcutaneous is the most useful for general use. In emergency work, the intravenous method will often be needed in severe hemorrhage, and the rectal enema of the solution will be found of great advantage in nearly all cases where no bowel lesion is to be combated. In abdominal surgery the peritoneal cavity will be the place selected for its introduction, and even in vaginal opening of the peritoneal cavity, as in hysterectomy. From this way the author has thrown considerable quantities into the peritoneal cavity, the hips being elevated at the time, and the peritoneal opening closed directly afterward. The intravenous route, usually the most rapid, may be rendered slower than the subcutaneous by the difficulty of finding a vein and successfully introducing the canula.

The physiologic action of normal salt solution is a powerful stimulant to the cardiac ganglia and the nerve centers. The skin, kidney and intestinal functions are stimulated markedly, and other organs are likewise affected. Osmosis is markedly promoted by it, and as a result of increased arterial tension the blood supply to the heart muscle is much increased. It has a hemostatic effect when applied locally to raw surfaces, lessening oozing by stimulating and contracting the smaller vessels. According to Hayem and others it augments the number of red blood corpuscles.

It is eliminated by the skin, changing the chemical reaction of the perspiration and heavily loading it with salt. The kidneys also carry away an enormous amount of it when large quantities have been introduced into the tissues. The lungs remove it freely, it having been noticed in crystals on the lips after its free use. Autopsies after its use under the skin have shown a considerable quantity of it in the intestine, demonstrating that it is thrown off by this route.

In general medicine it has been used in diphtheria, scarlatina, uremia, intestinal hemorrhage of typhoid fever, perforation of typhoid ulcers, cholera, cholera morbus, pneumonia, diabetic coma, hemoptysis, ulcerative endocarditis, poisoning by carbon monoxide, by mushrooms or by alcohol, lead colic, epilepsy, tetanus, toxemia from the colon bacillus, arsenical poisoning, pyelitis, renal insufficiency, and numerous other affections. In obstetrical practice sepsis, post-partal hemorrhage and eclampsia are the conditions in which it is commonly used. The surgeon finds the greatest employment for it, probably 90 per cent. of it being used in surgery. Here it is used to prevent and to reduce shock in severe hemorrhage, for irrigation in sepsis, and for many other purposes.

"Lavage of the blood" has been largely employed in sepsis and sapremia. In many conditions blood-letting and saline infusion, either into the vein, or under the skin, have been successfully employed. A strong indication for its use should be the heavy drain on the fluids of the body from cholera and cholera morbus. In renal insufficiency the compensatory emunctories are greatly stimulated by it, the skin rapidly becomes drenched with perspiration, and almost immediately the renal function resumes to a normal and sometimes to an exaggerated degree. In uremia, abstraction of blood and infusion of normal salt solution has become a favored practice. Colon irrigation with enormous quantities has proven very successful in the hands of Grandin. In puerperal sepsis its use has been attended with varying success, some clinicians being enthusiastic in this plan of treatment. In post-partal hemorrhage it is strongly indicated, and has given great satisfaction. Coupled with abstraction of blood, Williams and others have been very successful with it in the treatment of puerperal eclampsia.

In surgery the principal indications for its use are shock, hemorrhage and sepsis. In shock it should be employed early, on the

28 USE AND ABUSE OF NORMAL SALT SOLUTION.

table during or preceding operation in bad cases, or after operation in milder ones. Severe hemorrhage is to be treated in the same manner, though only after the flow of blood has been checked. If the hemorrhage be severe, the intravenous route may be employed, it being about the only indication for this method. In the author's abdominal work, he almost invariably leaves a considerable quantity of salt solution in the peritoneal cavity. Its salutary effect is produced by its action on the abdominal viscera with which it comes in close contact. To prevent adhesions in the pelvis one or two liters suffices. It hastens absorption of stray or concealed blood clots, septic foci or escaped fluids, by carrying them well up into the abdominal cavity in cases of pelvic surgery. In hemorrhage it is probably best to infuse small quantities and often, rather than one large quantity.

Judging from the reports of experimenters and personal friends, the use of normal salt solution is not a harmless procedure. It is contra-indicated in such conditions of the blood as hemophilia, dyscrasias, deficient fibrin, etc. It would seem not unreasonable that such a strong stimulant, coupled with its dilatation of the blood vessels when used in large quantities, and especially when thrown directly into them, would be very harmful in such conditions of the circulatory apparatus as myocarditis, pericardial effusion, atheroma, arterio-sclerosis, cardiac degeneration, bad valvular lesions, thrombosis, and recent cerebral apoplexies. Chronic diseases of the lungs, kidneys or liver, especially if malignant, are apt to be aggravated by it. Active hemorrhage in any location is aggravated by it. The presence of toxins in the blood has been found to retard the elimination of normal salt solution, and for that reason small quantities at a time only should be employed.

It is necessary to avoid certain accidents and mistakes in using normal salt solution. We must know the solution is sterile when it enters the tissues of the body, except by the rectum, in which case it is of no moment. Avoid air bubbles entering into blood vessels or cellular tissue. The fluid must be of a sufficiently high temperature when it reaches the body. Chills occur from cold solution, and are dangerous to very weak patients. The vessel containing the solution, as well as the tube and needle conducting it, must be aseptic and thoroughly pervious; the tube should have a glass window, that the rapidity of the current and the presence of any

foreign body may be noted. When the solution is to be introduced through the skin, either into cellular tissue or vein, the local surface should be cleaned as much as the limited time will permit. Probably not more than a half liter should be injected into the tissue through one puncture, as localized necrosis and aseptic inflammation have resulted from over-distension of the tissue spaces. Ordinarily not more than one ounce per minute should be injected into tissue or vein. Pulmonary edema, dyspnea, headache, vertigo, mental excitement, delirium, hallucinations, severe pain in the left side, occur from over-distension of veins by too large infusion.

THE TREATMENT OF COMPLETE RUPTURE OF THE PERINEUM BY DISSECTING OUT THE SPHINCTER MUSCLE, AND ITS DIRECT UNION BY BURIED SUTURES.*

BY HOWARD A. KELLY, M.D.

BALTIMORE, MD.

The results of the best methods of the treatment of complete tears of the perineum are not entirely satisfactory in a large percentage of cases. The control over liquid motions and flatus are, as a rule, not secured immediately, and it is usually necessary to encourage the patient by telling her that she "will have to learn to control the muscle in the course of time." Such a control, more or less perfect, is gained in the course of several months. This defect in our present procedures is due to a faulty approximation of the sphincter ends, which lie buried in a pit, and are therefore difficult to bring into accurate firm apposition by sutures embracing a considerable quantity of tissue surrounding the sphincter ends.

I have to propose, therefore, the deliberate dissection and freeing of the sphincter ends, drawing them out about one and a half centimeters from the tissues, cutting off the scarred ends, and a direct union of the freshened ends by two or three buried catgut

* Author's abstract of a paper read before the Southern Surgical and Gynecological Association, Memphis, Dec. 6, 1898.

30 TREATMENT OF RUPTURE OF THE PERINEUM.

sutures. I was led to do this operation by my experience in a case which had been operated upon six times (Fig. 1), with a result

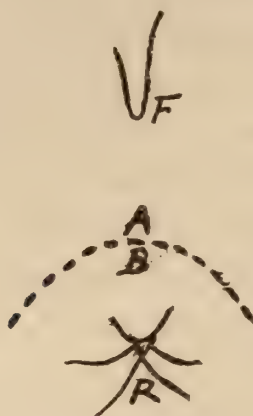


Fig. 1 shows the external appearance in the case operated upon six times. F is the fourchette, R the rectum, and between the two a well-constructed perineum. The dotted line A B shows the position of the semi-lunar incision.

which, judged by superficial appearances, was perfect, and yet the patient had no control over her bowel functions.

I made a semi-lunar incision around the anterior periphery of the anus, and found the right sphincter end buried in scar tissue in the median line, while that of the left side was ectopic and attached out under the ischial tuberosity (Fig. 2). The sphincter

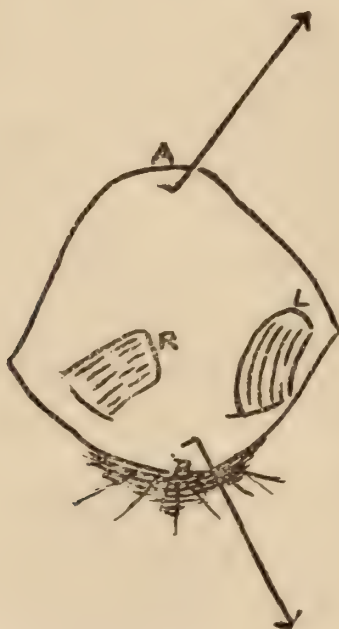


Fig. 2 shows the semi-lunar incision laid open, exposing the sphincter ends, R and L, that on the left side being displaced under the left ischial tuberosity.

ends were united directly by buried catgut sutures, and the skin wound closed (Figs. 3 and 4), and union took place *per primam*.



Fig. 3 shows the sphincter in dotted lines, with its ends united by catgut sutures. The skin wound is closed by interrupted sutures.

In addition to these buried catgut sutures, a splinting suture of silkwormgut is passed through the middle of the sphincter near the edge of the wound and on up through the septum, splinting the ends together and taking the tension off the catgut.

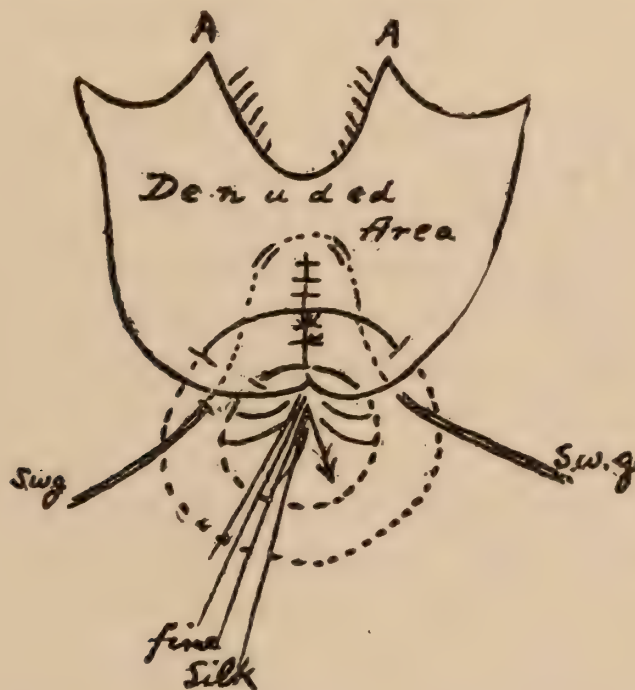


Fig. 4 shows the union of the sphincter ends by catgut sutures in an ordinary case of complete tear of the perineum. A A are the apices of the denuded triangles in the right and left vaginal sulci. Fine silk sutures have been used to unite the tear on its rectal side. After this step the sphincter ends are united, then a silkwormgut suture is used, passing through the middle of the sphincter on both sides and on up through the septum. The remainder of the wound is closed in the usual manner.

I have since taken the hint given by this case and adopted a similar procedure in six cases of complete tear of the perineum due to confinement. Two additional cases were operated upon by Dr. W. W. Russell, and one by Dr. Otto Ramsay. In each instance there was a surprising difference between the new and old methods, noted at once in the earliest stages of the convalescence, and the patient was immediately conscious of her perfect control of her functions. The bowels should never be locked up. Great care must be taken not to leave any dead spaces in closing the remainder of the wound in the usual way, in order to avoid all risk of infecting the buried sutures.

I only recommend this operation to those who possess considerable skill in doing operations and in securing a snug accurate adaptation of the parts.

ACUTE GENERAL PERITONITIS.*

BY RICHARD DOUGLAS, M.D.

NASHVILLE, TENN.

A classification of acute general peritonitis from a bacteriologic standpoint is not practicable. In some cases there are no microorganisms. Flexner found twelve such in a series of one hundred and ten cases. Sometimes their absence may be due to the fact that death occurs before the colonies have had time to develop. We cannot by symptoms distinguish a streptococcus from a colon bacillus infection. Maloz says that peritonitis of intestinal origin is due to the colon bacillus; if of uterine origin, we find the streptococcus. This law is nullified by the almost constant association of the colon bacillus with other organisms. Pryor reports a case of peritonitis of uterine origin, in which the uterine mucosa contained pure streptococci and the peritoneum pure colon bacilli. Too much importance has been attached to the colon bacillus.

Staphylococci tend to produce limited inflammations. Pure gonorrheal infection will not cause general peritonitis with septice-mia, but the infection must be mixed, according to Bumm and Saenger, while Menge and Wertheim prove that the human peritoneum can be inflamed by the gonococcus. The observations of the bac-

* Abstract of the President's Address delivered before the Southern Surgical and Gynecological Association, at Memphis, December, 1898.

teriologists are either experimental, post-operative or post-mortem, and therefore not applicable for diagnostic purposes. Bacteria alone and unaided by physical conditions, are comparatively innoxious.

A classification based on etiology appeals to us, such as the following :

1. Traumatic, including all infective inflammations arising from accidental or operative wounds of the peritoneum.

2. Consecutive, secondary, or symptomatic—

- (a) Peritonitis by continuity.

- (b) Perforation peritonitis.

Traumatic peritonitis develops after preparation of the field by injury for bacterial growth. The most common example is the post-operative ; the infection is generally mixed. It arises from undue exposure and chilling of the parts, rough handling, failure to wall off infected areas with gauze, leaving raw surfaces, unnecessary or improper drainage, etc.

Consecutive peritonitis comes from visceral inflammations, and even by hematogenic and metastatic processes. Individual resistance is an important factor in its development. The pathogenic organisms vary with the character of the initial cause. Consecutive peritonitis rarely yields a pure culture of any organism. In perforation peritonitis three factors are introduced—a foreign substance, a chemical irritation (hence lowered resistance), and bacteria. This form develops in the region of the appendix, duodenum and stomach ; while the form by continuity develops in the pelvis.

Traumatic peritonitis is a grave affection, since all the conditions are favorable for germ culture and dissemination. Peritonitis by continuity may become general and rapidly fatal ; but this is not the rule, except in puerperal cases. Visceral perforation is an ideal condition for germ culture and toxin development.

Acute general peritonitis is and must be septic—that is, of bacterial origin. Tietze defines diffuse septic peritonitis as “that form of peritonitis in which there is little or no exudate, severe symptoms of intoxication, and terminating rapidly, fatally.” Cases with great purulent effusions and mild symptoms of sepsis must be differentiated from these. To convey the idea of intense systemic infection, the term intestino-peritoneal septicemia is advisable, and means, then, acute general septic peritonitis. The adjective “diffuse” is entirely unnecessary.

THE MEMPHIS LANCET.

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EDITORIALS.

YELLOW MEDICAL JOURNALISM.

We have recently received the following communication from a very respectable monthly contemporary :

-----Medical Journal. -----, -----, U. S. A., Dec. 7, 1898.
Dr. -----, Memphis, Tenn.

Dear Doctor—

We have just read with much interest the paper you presented to the Memphis Medical Society, entitled, “-----.” Your style of writing is certainly very attractive. We would like very much to get you to write an article of about a thousand words for our journal. If you will furnish us an article within the next month on one of the following subjects: Micajah’s Medicated Uterine Wafers in Uterine Diseases, manufactured by Micajah & Co., Warren, Pa., in any disease in which it is indicated, -----, in any disease in which it is indicated, -----, in any disease in which it is indicated, we will send you our journal complimentary for three years. Under separate cover we send you several copies of the journal for your inspection. If you need any special literature on the subjects named above, you can get it by writing to the manufacturers, or if you need any of the preparations for experimental use, they will take pleasure in sending you all you want. Please let me hear from you by return mail. Thanking you in advance for a favorable reply, we are,

Very truly yours,

Of course it is to be seen at a glance that the communication is a business proposition from beginning to end. It is not a question in which the scientific value of the contribution asked for will be considered. It is a question of dollars and cents to the publishers of the journal in question, enabling them, as it probably will, to swell their advertising pages. But how about the doctor who writes

such an article, who lends himself for a three-years subscription to such a prostitution of his energies? In our opinion he needs some one to apologize for him, and we take upon ourselves this privilege. We all use proprietary preparations more or less; we can all say something for and against most of them. Some of them are almost perfect from the standpoint of pharmaceutical excellence, but inert from the standpoint of therapeutic value. Others have such undoubted therapeutic value that no physician's armamentarium is complete without them, and he is therefore at times, and by spontaneous effort, prepared to say a word in favor of some certain preparation. For a physician, however, in good standing to be directly asked by the publishers of a medical journal claiming respectability to subscribe his name to the merits of a certain drug or preparation that probably never was nor never will be of any scientific or therapeutic interest to him, is carrying medical journalism, in our humble opinion, a shade too far. But to be asked to subscribe to the merits of Micajah's Medicated Uterine Wafers in Uterine Diseases, a preparation which is nothing more or less than a quack medicine, is, to say the least, enervating. These people no doubt have met with some success in this practice or they would not be applying it as they are. And should it happen to be an experiment with them, it is only just and proper that the stamp of disapproval be set upon such practices. We think that the ethics of medical journalism are as well defined in discountenancing such contemptible trafficking as are the ethics governing and regulating the practice of medicine, and the sooner this is recognized the better will it be for medical journalism, and for medical thought and opinion. The thought of receiving a big fat journal (full of advertisements) for nothing for three years may seem a very tempting offer to some poor straggling or struggling practitioner, and without the slightest hesitation he pens the desired testimonial and has his library stocked for the next three years. Had he an eye to business he might make such an occasion of some profit to himself, because such contributions are *valuable* (to the publishers and advertisers), and if it came to a pinch the publishers might be willing to pay handsomely for such articles, and in this way, perhaps, cultivate the latent literary instincts of Dr. T. Esti Monial sufficiently to drive him from his confines and instill into his cramped digits sufficient inspiration to write his name legibly to

a symposium made to order, and which may make him famous. For does not the good letter already quoted explicitly state "if you need any special literature on the subjects named above, etc., etc.?" Such practice is liable to lead many physicians into error, sacrifice life, perhaps, and disturb the confidence of the laity in the medical profession. And since we also question whether any real reputable business house handling any real reputable drugs or preparations would lend themselves to such a deliberate attempt to undermine the foundation of our ethical fabric, we may well ask the question—when and where is yellow medical journalism going to end?

VOLUME TWO.

With this number the LANCET enters on its second volume, with prospects far exceeding the fondest hopes of its founders. The labor spent in its preparation is not regretted when we see to what a gratifying extent it is appreciated. Our first volume contained a list of contributors who represent the front rank of medical thought in this country and Canada. We have presented every department of medicine in both the original and abstract department, and have many more excellent contributions on hand. We have published promptly and accurately the only reports of the proceedings of the local medical societies that have ever been published, as well as a record of events of medical interest to those in and about Memphis. We have published an average of sixty-five pages of reading matter each month, almost twice as much as any other one-dollar journal in the Southwest. The LANCET is, and will continue to be, a good, clean journal, conducted in the interest of the whole profession, and its size will be increased and its scope enlarged as circumstances warrant. You can aid us by your support, which we will try to merit.

IMPORTANT TO BOOK BUYERS.

Inasmuch as the LANCET reaches many physicians who are not situated conveniently to book sellers, we have made arrangements with the publishers to supply any publication through the LANCET at the net price, postage free. One publisher has a representative in Memphis, and the LANCET will turn orders for their books over

to him, but all others will be ordered direct. The usual discounts will be allowed, and we can surely save you time and trouble, and possibly money, on any books you may wish to buy. Catalogues, prices, etc., will be sent on application. This plan is simply one of convenience on the part of the LANCET, and is in line with our policy to render all possible assistance in every way to physicians. All orders must be accompanied by cash.

REPORTS OF SOCIETIES.

PROCEEDINGS OF THE SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION.

Meeting held at Memphis, December 6, 7 and 8, 1898.

The meeting was called to order by the President, Dr. Richard Douglas, of Nashville. A prayer was offered by the Rev. Thos. F. Gailor, Bishop of Tennessee, after which an address of welcome was delivered by Dr. Alexander Erskine, and responded to by Dr. Douglas.

Dr. W. E. Parker, of New Orleans, read a paper on *Gunshot Wounds*, giving his experience during the late war at Santiago, Siboney, and on board the "Olivette." He exhibited the various sorts of cartridges used by the two armies, the first aid packages, etc. The hospital facilities on land were inadequate, ambulances being especially needed. Wounds inflicted by the Mauser rifles seemed to have little "stopping" power, and the wounds themselves were usually found clearly punctured, free from foreign substances, and inclined to heal kindly. In wounds of the abdomen laparotomy was not performed, largely on account of the lack of facilities to care for cases of that sort. The mortality was quite low.

Dr. Floyd W. McRae, of Atlanta, read a paper on *Penetrating Wounds of the Abdomen*, in which he advocated early operation in cases where visceral lesion was suspected.

Dr. H. Horace Grant, of Louisville, read a paper on the *Practical Side of the Treatment of Bullet Wounds of the Abdomen*. Surgeons are agreed as to the best course to pursue, but he doubted if the

general practitioner appreciated the importance of early operation. Penetrating wounds of the abdomen demand laparotomy as early as possible after diagnosis. Peritonitis sets in usually on the second day when the viscera are wounded, and the prognosis is then grave. The mortality is high in cases with intestinal wounds which are not treated. Best results follow when operation is done within seven hours, and the outlook is very bad after twenty-one hours. It is difficult, if not impossible, to diagnose a perforation without opening the abdomen. If a perforated intestine is found it should be sutured or resected according to circumstances. Bleeding from wounds of the solid viscera require a suture, packing, or sometimes, in the case of the kidney, extirpation. To facilitate cleansing, it may be necessary to incise and empty the intestine. Drainage is indicated often. Four cases were reported, three requiring resection and one suturing of the bowels. One of the patients died.

Dr. W. E. B. Davis, of Birmingham, favored immediate operation. Senn's method of inflation to diagnose perforations is of small utility. The mortality of laparotomy in skilled hands is practically *nil*. His own twenty-five reported cases speak in favor of early operation.

Dr. G. A. Baxter, of Chattanooga, mentioned a case in which a man recovered without operation after a perforation of the stomach and liver. Every operation should be exploratory.

Dr. J. T. Wilson, of Sherman, Tex., said that the shape of the Mauser bullet favored its entry without carrying particles of clothing, etc., into the wound, and it makes a small, clean wound, while the larger bullets make a jagged wound, carrying foreign matter, and are attended with greater danger of infection.

Dr. W. L. Rodman, of Philadelphia, was not willing, in the face of the experience after Santiago, to operate on every case of penetrating wound of the abdomen. In one case, operation on the seventh day was followed by an unexpected recovery.

Dr. Willis F. Westmoreland, of Atlanta, favored early operation, but thought it should be done by a skilled laparotomist. He spoke of the necessity of resecting the intestine when the mesentery is injured.

Dr. W. E. Parker said he advised operation in abdominal wounds in civil life, but on the battlefield the surroundings do not justify it. He would not remove a kidney unless the pelvis or the large blood vessels are cut.

Dr. H. Horace Grant said that we should not consider the few who recover, but the many who die, in advising the treatment of abdominal wounds, and on this basis he advises early opening of the abdomen.

Dr. L. S. McMurtry, of Louisville, read a paper on the *Treatment of Cancer of the Uterus*. He has found the disease more common in whites than in negroes, and is opposed to any attempt at a radical operation, accomplishing more by curetting and caustics.

Dr. W. L. Rodman was surprised at the opinion that cancer of the uterus is more frequent in the whites than in the blacks.

Dr. Ernest Lewis, of New Orleans, has found carcinoma of the uterus more common in negresses than in white women. He thinks the vaginal route the preferable one, but regards all operations as palliative. He had only had one patient to live over three years after operation, and that one lived eight years. Better results are obtained from curetting and packing the uterus with pledgets of cotton saturated with a solution of chloride of zinc. One patient treated this way lived fifteen years.

Dr. Virgil O. Hardon, of Atlanta, agreed with Dr. Lewis as to the greater relative frequency of carcinoma of the uterus in negresses than in white women, as well as in the failure of operative measures to cure. He thought a cure by early operation theoretically feasible, but practically we do not obtain it.

Dr. Howard A. Kelly, of Baltimore, thought early radical operation would cure many cases, and he was sure he had cured many in this way. The sacral and iliac glands are enlarged in these cases by inflammatory, not a carcinomatous, process, and hence carcinoma of the uterus is not analogous to carcinoma of the breast. Curetting is of value in that it removes a pyogenic mucosa and favors drainage, and thus largely does away with the septic element, from which so many patients with carcinoma die.

Dr. W. D. Haggard, Jr., of Nashville, read a paper on *Plastic Surgery in Gynecology*. He argued for system and preciseness in plastic work, which was being passed by on account of the great attention abdominal work was receiving.

Dr. Howard A. Kelly read a paper on *Repair in Cases of Complete Tear of the Perineum*. (See p. 29.)

Dr. J. T. Wilson read a paper on *Fractures Involving the Elbow Joint*. He said all fractures of this joint are accompanied by dis-

location. The reduction should be accomplished under an anesthetic. He then immobilizes the joint by a plaster splint made in anterior and posterior halves. He advocated infrequent inspection, and removes the dressing and begins passive motion in four or six weeks.

Dr. L. McL. Tiffany, of Baltimore, advised frequent inspection of the parts and readjustment of the dressing as the swelling subsides. Exact diagnosis is difficult on account of the swelling. He encourages early active motion.

Dr. W. F. Westmoreland advised frequent inspection of the joint, and thinks much is to be said in favor of direct wiring of the fragments.

Dr. A. M. Cartledge, of Louisville, does not use plaster of paris, but sole leather, and dresses the joint frequently. He sees many bad results.

Dr. G. A. Baxter dresses each case on its own merits, and believes in early passive motion.

Dr. W. B. Rogers, of Memphis, does not follow any one kind of dressing. He often uses a trough-shaped posterior splint. He has seen few perfect results. He re-dresses in forty-eight or sixty hours, and begins motion in ten days.

Dr. J. Wesley Bovée, of Washington, read a paper on *Use and Abuse of Normal Salt Solution*. (See p. 25.)

Dr. L. McL. Tiffany advocated phlebotomy and intravenous injection of salt solution as the only treatment offering any hope in profound sepsis. In cases of purulent peritonitis he dry-cleanses the belly, and introduces the salt solution into the arm.

Dr. Howard Kelly gives an enema of a quart of salt solution after abdominal operation, and thereby lessens thirst and increases the activity of the kidneys. In cases of hemorrhage he introduces the solution under the breast. He does not use the intravenous method.

Dr. L. S. McMurtry called attention to the necessity of having needles, solution, and field of operation sterilized. Superficial veins are hard to find in exsanguinated patients, and in such cases he searches for the larger venous trunks. He washes the peritoneum when it is soiled, and drains with gauze and tubing.

Dr. G. A. Baxter was enabled to complete a hip joint amputation after a saline enema had been given. The operation would have otherwise had to be abandoned.

Dr. G. A. Brown, of Birmingham, had used the saline solution subcutaneously in cholera infantum and pneumonia with good results.

Dr. Joseph Taber Johnson, of Washington, read a paper on the *Conservative Treatment of the Diseased Ovary*. A healthy ovary should never be removed. Cysts should be excised and the wound sutured. Even if only a part of an ovary is healthy it is advisable to preserve it, to avoid the nerve storms of an artificial menopause. In deep collections of pus it is often best to simply open them and drain through the vagina rather than remove by abdominal route.

Dr. Howard A. Kelly leaves every bit of healthy ovary. In one case removal of the tube on one side and the ovary on the other, leaving a healthy tube and ovary on opposite sides, allowed conception to occur. If it is necessary to remove both ovaries, it is well to remove the tubes and the uterus, even if healthy, since the latter will cause subsequent trouble by displacements, etc. He has removed fifteen fibroids from a uterus by dissection, closed the wounds, and seen pregnancy occur.

Dr. I. S. Stone, of Washington, did not approve of the vaginal incisions for the evacuation of pus from the pelvis. He thought *Dr. Kelly's* conservatism was inconsistent when he labored to save a healthy part of a diseased tube or ovary and removed a whole healthy uterus.

Dr. Ernest Lewis has seen cases recover nicely after evacuation of pelvic abscesses through the vagina. If this does not cure the patient, an abdominal operation can be done later. This plan often avoids the necessity of a more serious abdominal operation. When it is necessary to remove the ovaries, he thought it better to fix the uterus to the abdominal wall than to remove it.

Dr. J. Wesley Bovée thought operative cases should be carefully selected, and a more careful diagnosis made in simple inflammatory cases.

Dr. L. S. McMurtry did not understand *Dr. Kelly's* conservatism which leads him to do so severe an operation as hysterectomy when the uterus is normal. He would prefer to save this uterus and remove the one with fifteen fibroids. He thought conservatism would exclude many neurotic patients as subjects for pelvic surgery.

Dr. A. M. Cartledge read a paper on *When Should We Operate for Appendicitis?* (See p. 1.)

Dr. J. W. Borée said that *Dr. Cartledge's* conclusions were as good as any hard and fast rules could be.

Dr. Howard Kelly said that in many cases he made a second incision parallel to the usual incision and a little distance from it, and he could watch through one while he worked around behind the peritoneum to the abscess cavity through the other. He would not willingly open an abscess transperitoneally.

Dr. H. H. Grant thought that individual experience would always guide the surgeon, and in some points his experience would lead him to adopt a somewhat different course than that advised by *Dr. Cartledge*.

Dr. W. E. Parker would like a little latitude in following some of the conclusions as laid down by *Dr. Cartledge*, but on the whole approves of them.

Dr. W. B. Rogers did not believe that any rules would be invariably applicable to cases of appendicitis, but those laid down would come as near as any he knew of.

Dr. Geo. H. Noble, of Atlanta, read a paper on *Ureteral Anastomosis*, and reported a case in which this procedure had been successfully done.

Dr. Howard Kelly said that when the ureter was injured it was because it occupied too high a position. Usually the function of the kidney whose ureter is wounded is impaired. The most satisfactory treatment is direct implantation into the bladder, which may be dissected loose and drawn up to the free end of the ureter.

Dr. J. W. Borée said that when the wound was high up, bladder implantation was very difficult. He prefers oblique anastomosis. Implantation of the ureter into the bladder permits a reflex of urine into the ureter. In dogs he has loosened and depressed the kidney, but has not attempted to do so on a human subject.

Dr. W. F. Westmoreland read a paper on *Tumors of the Breast*, and pointed to the study of the blood in carcinoma as a means of assistance in making a prognosis. He said that after operation the hemoglobin percentage would be sure to rise to normal or very near it, and that when it began to fall again a recurrence of the growth is probable. He finds this test almost absolute. In regard to leukocytosis he said that there was always a slight leukocytosis in schirrus and other slow-growing cancers, but in medullary, rapidly-growing cancers there was a very high leukocyte count. A

count is therefore of diagnostic value. He advocated the Halstead operation in all forms of cancer of the breast. In referring to the statistics of Halstead, he showed that while they were correct they did not express what Halstead really meant to convey, and were therefore very misleading, especially to those who do not take the trouble to analyze statistics thoroughly. There was no other living surgeon who had recurrence in only 6 per cent. of cases, and this is what Halstead seemingly says, but does not mean.

Dr. A. M. Cartledge emphasized the point made in regard to Halstead's statistics.

Dr. F. W. Parham, of New Orleans, said that a celebrated continental surgeon was in the habit of relying almost solely on the blood count and hemoglobin estimation for his prognosis in cases of cancer, both before and after operation.

Dr. I. S. Stone, of Washington, read a paper on the *Rarity of Ovarian Tumors in Negresses*. He read abstracts from reports of the leading gynecologists all over the country, and especially from the South, in which their rarity in pure Africans was well established.

Drs. Johnson, Bovée and Lewis all confirmed the essayist in his views.

The *President's Address* was delivered by Dr. Richard Douglas, of Nashville. (See p. 32.)

Dr. J. B. Murfree, of Murfreesboro, read a paper on *Penetrating Wounds of the Chest*, with special reference to the methods of controlling hemorrhage.

Dr. L. McL. Tiffany suggested drawing the lung tissue into the wound to form a sort of plug.

Dr. F. W. Parham read a paper on *Thoractomy for Tumors Involving the Ribs with a Report of Two Cases of Osteosarcoma of the Thoracic Skeleton*. The Fell-O'Dwyer apparatus for artificial respiration was used. In both cases the pleura was opened and the lung collapsed. Artificial respiration made it possible to complete the operation. In the first case, five inches of the third, fourth and fifth ribs were removed, the operation lasting two hours. There was great shock and convalescence was complicated by pneumonia. Thirteen months after operation there was no recurrence. The tumor was a small spindle-celled sarcoma. In the second case, a hydro-thorax developed after operation, but recovery ensued and

no recurrence after eleven months. The scar moves with respiration and the patient has to wear a shield. The tumor was a chondrosarcoma.

The causes of death in these cases are sepsis, absorption of antiseptic solutions, shock, pneumo-thorax and hemorrhage. When the pleura is opened, the danger is greater when the opening is large and on the right side. Chloroform is the preferable anesthetic, and after the pleura is opened this should be stopped and the Fell-O'Dwyer apparatus used. He uses no irrigation, and leaves only a small opening for drainage.

Dr. W. F. Westmoreland said that the fact that the sarcoma was of the spindle-celled variety in the first case, probably explained its not recurring, this form being less malignant than the round-celled.

Dr. L. McL. Tiffany suggested injecting sterilized air into the pleural sac beforehand, to accustom the patient to the use of one lung.

Dr. W. E. Parker thinks that the Fell-O'Dwyer apparatus will revolutionize thoracic surgery.

The following officers were elected:

President—Dr. Jos. Taber Johnson, of Washington.

Vice-Presidents—Dr. W. L. Robinson, of Danville, Va.,

Dr. F. W. Parham, of New Orleans.

Secretary—Dr. W. E. B. Davis, of Birmingham.

Treasurer—Dr. A. M. Cartledge, of Louisville.

The term of Dr. L. McL. Tiffany, of Baltimore, as a member of the council had expired, and he was reëlected.

The next meeting will be held in New Orleans.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

Abstract of the Proceedings of the Twenty-fourth Annual Meeting, Held at Nashville, Tenn., October 11, 12, 13 and 14, 1898.

[CONCLUDED.]

Dr. Geo. Ben. Johnson, of Richmond, Va., delivered the address on surgery. His subject was the *Progress of Renal Surgery*. Renal surgery is altogether a matter of the past three decades, having had its commencement with the successful nephrectomy performed by Simon in 1869. Dr. Johnson dealt with nephrotomy, floating

and movable kidney, renal and ureteral calculi, neoplasms of the kidney, tuberculosis of the kidney which, when not a part of the general miliary tuberculosis, may either have its origin in the kidney or may be an ascending affection from the bladder. Hydronephrosis also received attention. He made no attempt to arrive with anything approaching completeness at the progress or present status of surgery of the kidney. He has endeavored merely to point out some of the advances which have been made in this field of surgery, and to indicate the present view of surgeons upon some of the most important points. Especially did he emphasize the conservatism which has developed along this line, and which now marks the attitude of the surgeon in this as in other branches.

Dr. Wm. R. Pryor, of New York City, read a paper on *Why I Perform Vaginal Ablation in Pelvic Inflammatory Cases*. Up to October 1st of this year he has performed vaginal hysterectomy for pelvic inflammatory lesions, exclusive of fibroids and cancers, eighty times. Since that time he has made the operation a number of times. No case has died either from the operation or from complications. He has no fecal fistula to report; no sinuses, no vesicovaginal fistulæ, and no hernias. There have been no cases of phlebitis, and no intestinal obstructions. The vagina has in no case been shortened. For the technique of the operation he refers the reader to the *American Journal of Obstetrics*, vol. 36, no. 6, 1898.

Dr. Shelby C. Carson, of Greensboro, Ala., read a paper entitled, *A Consideration of the Limits to Operative Gynecology*. He emphasized the importance of medical gynecology, and showed that surgery cannot advance a legitimate claim to even the larger portion of this great field. What constitutes true surgery is then discussed, the author proving that surgery, of all other branches, is based upon principles and hedged in by fixed laws, and that when these are disregarded there is no true surgery.

Dr. J. Wesley Bovée, of Washington, D. C., read a paper on *Therapeutic Value of Leaving Large Quantities of Normal Salt Solution in the Abdomen*, in which he reported six cases to illustrate the usefulness of this procedure. The stimulating effect of the remedy on the kidneys is noticeable in all the cases. Penrose has found that the average amount of urine excreted during the first twenty-four hours after operation in one hundred cases was 13.4 ounces; for the second, 14.6 ounces, and for the third, 19.8 ounces. He also found

that for the first day the maximum amount of urine was 27 ounces. In many of the cases of the essayist this maximum was much more than doubled. While the number of cases in which he has used these large quantities of normal salt solution is small, the effect should encourage a further application of the remedy in proper cases. Not one evil result of the solution was observed in any of the cases.

Dr. F. F. Bryan, of Georgetown, Ky., read a paper entitled, *A Plea for Pelvic Cellulitis and Peritonitis*. He reported twenty cases, and drew the following conclusions:

1. Cellulitis and peritonitis are important manifestations leading to the greatest amount of suffering that woman is heir to.

2. Their recognition and the retention of their nomenclature should keep physicians constantly on the watch for them.

3. Their proper treatment in the early stages will obviate these latter evils to a great extent, as cellulitis and peritonitis are easily curable in the early acute stages.

4. That should opportunity for an early cure not be offered, then the chronic cases should have the medical and minor gynecological treatment mentioned by him, under which many will be cured. Others obtain relief, and a respectable quota will of necessity have to turn to surgery for their cure.

Dr. Alex. C. Wiener, of Chicago, read a paper on the *Surgical Treatment of Paralysis in Children*. He said a clear distinction should be made in diagnosis as well as treatment between cerebral and spinal paralysis. A common symptom in both diseases is paralysis, and yet there is a great difference between the two. In spastic paralysis one group of muscles becomes rigid and overpowers its opponents, rendering them over-stretched and useless, but still their innervation is by no means disturbed. In spinal paralysis there is a true degeneration of the lower neuron and the dependent muscular groups. This being borne in mind, the treatment is to equalize the balance between the spastic and the over-stretched muscular group by lengthening the rigid muscles. This is done either by tenotomy, resection of tendons, or loosening the attachments of the muscles from the bone, as is done in a spastic condition of the adductor muscles of the pelvis. The after-treatment consists mainly in not allowing the extremity to leave its over-corrected position too soon, and in strengthening the functionally weakened opponents by mas-

sage, baths, and electricity. Apparatus in these cases are utterly useless, and should be entirely discarded. Any other peripheral cause of reflex irritation, as phimosis, occlusion of the prepuce, or of the clitoris, is to be removed. In anterior poliomyelitis we have to deal with a true paralysis of certain muscular groups. This may be overcome by apparatus which supplant the paralyzed muscles, or by operative procedures. Operative measures consist in dividing the belly of an active muscle up to the place of its insertion and sewing the corresponding part of the tendon into the cleft of the tendon which belongs to the paralyzed muscle. The inactive muscle is supplied with the vigor of the innervated muscle, taking care, as Milliken has pointed out, that the sheath of the tendon is preserved. By this artificial change in the arrangement of muscles the function of one muscle is transmitted to another. There is taking place an alteration of the reflex activity in the nerve centers of the muscles; hence the importance of the function of the extremity is by no means a mere mechanical act.

Dr. Joseph R. Eastman, of Indianapolis, read a paper on *The Diagnosis of Gonorrhea in Women*. The diagnosis of this affection in women is comparatively easy, even without the microscope. It will be concluded after many examinations for gonococci, that the urethra is the seat of predilection of gonorrhea in women, and that the vulvitis and vaginitis are secondary, being caused by the bathing of these parts with the discharge from the urethra and cervix. The diagnosis of acute gonorrhea may be made by contemplation of the clinical phenomena alone. For example, if acute urethritis be present it is almost certain that the gonococcus is to blame. Observation for a few days will establish the diagnosis beyond conjecture, since the symptoms of non-specific urethritis will disappear rapidly.

Dr. A. M. Cartledge, of Louisville, contributed a paper on *Posterior Displacements of the Uterus*. He dealt with the subject from a clinical standpoint. Treatment should be divided into measures which correct the cause and methods of support by suturing and shortening the round ligaments. Sometimes it is necessary to employ both methods in the same individual in order to make the result durable. In the first category are to be included thorough curettage; repair of cervical lacerations, if present; perineorrhaphy and restoration of the pelvic floor; tonics, laxatives and rest.

These methods, if carried out successfully, will ultimately relieve the vast majority of posterior displacements. As between ventro-fixation, vagino-fixation, and Alexander's operation, preference should be given the latter, if no accompanying disease is suspected. Where such disease exists, the operation of ventro-fixation should be practiced, as it gives opportunity for inspection and correction of the pelvic disease. It is the best operation in all cases of adherent uteri.

Dr. A. H. Cordier, of Kansas City, Mo., read an excellent paper on *Some Phases of Intestinal Obstruction*. He said the causes of this condition are many and varied. Modern methods of diagnosis in skilled hands have led to the saving of many lives, which heretofore would have been lost by delay in resorting to the proper treatment. While the diagnosis of intestinal obstruction can usually be made early, there are some cases in which the pathological manifestations are so insidious or vague that their detection requires time and much careful clinical analysis. The symptoms of intestinal obstruction were thoroughly outlined. He said the falsehoods uttered by pain and the truths untold by opium have been very expensive to human life in the management of this condition. Surgical treatment for the relief of intestinal obstruction should be resorted to early. It should be thorough and quick. No protracted delays or chronic surgery should enter into the management of an acute intestinal strangulation, as these cases stand prolonged anesthesia and slow surgery badly.

Dr. Bayard Homes, of Chicago, read a very interesting paper on *Surgical Treatment of Exophthalmic Goiter*. The surgical treatment is based on the theory that in this disease the direct morbid factor is an increase in the normal excretion of the thyroid gland. He gave a synopsis of the physiology and pathology, and an outline of the embryology of the thyroid, after which he reported in detail an instructive case upon which he had operated, it being a very powerful argument in favor of surgery in dealing with this affection.

Dr. A. M. Osness, of Dayton, Ohio, read a paper entitled, *Diphtheria and its Logical Treatment*. The pathological process in diphtheria is caused by the serum albumin at the point of infection becoming moderated from incorporation with the specific virus. It is then repudiated by the blood stream, and exudes into the

neighboring tissues, where it, plus necrotic cells and fibrin, forms the pseudo-membrane, which is a congenial nidus for the Klebs-Loeffler bacillus. The intoxication of the system depends upon the energy of the lymphatics upon which devolves the removal of the exudate. The writer undervalues the treatment of diphtheria with antitoxin.

Dr. Wm. K. Jaques, of Chicago, followed with a paper on the *Early Diagnosis of Diphtheria*. He said that outside of laryngeal complications, the mortality from diphtheria is due to the toxin produced by the Klebs-Loeffler bacilli. No physician can successfully treat diphtheria unless he understands the nature of this toxin, how it is produced, and how the cells may be fortified against its destructive action. To appreciate the danger of his patient, a physician must understand the rapidity with which these bacilli multiply under favorable conditions. The clinical symptoms manifesting their residence may give no indication as to the rapidity with which the fatal amount of toxin is being produced. Understanding that toxin is a product of these germs their multiplication means an increased amount of toxin which soon reaches the fatal point unless checked by the use of antitoxin. This demonstrates the importance of a physician knowing at the earliest possible moment what germs are present in an angina. When no antiseptic treatment has been administered before the culture is taken, and the disease manifests malignancy by stupor, hoarseness, or swelling of the cervical glands, it has been possible in about 50 per cent. of the cases to find sufficient bacilli to warrant a diagnosis of diphtheria even before any trace of membrane is visible. When it has been possible to get a small portion of membrane to spread on the slide, there has been no difficulty whatever in about 75 per cent. of the cases in making a direct diagnosis. In the malignant form of diphtheria nearly 50 per cent. of the cases die unless proper treatment is administered. Any physician who neglects to make a correct diagnosis during the time when the remedy is efficacious, that is, during the first two or three days, is responsible for the result.

Dr. H. W. Whitaker, of Columbus, Ohio, read a paper on *Pichi*. In Chili, South America, pichi is found growing as a shrub in abundance. No doubt the active principle of the drug resides in the balsamic resin, but chemical examinations have so far been

unsatisfactory in determining its chemical composition. The annoying symptoms of chronic cystitis with enlarged prostate yield to the action of pichi, as was illustrated by the report of a case. This remedy is indicated in all of the various forms of diseases of the liver. In gallstones it has proven a valuable agent in assisting the secretion of bile, and theoretically aiding the discharge of the stones. Uric acid formations rapidly disappear from the urine under the corrective influence of this remedy, and the general condition of the patient improves.

Dr. A. Ravogli, of Cincinnati, Ohio, read a paper on *A Few Practical Points in the Treatment of Posterior Urethritis*. (See vol. I, p. 378.)

Dr. F. E. Kelly, of Lamoille, Ill., read a paper on *Varicocele*. The author outlined the operation for radical cure and the indications for its performance. He considers Bennett's operation of resection of the veins and shortening of the spermatic cord the ideal radical procedure, which he described in detail.

Dr. R. A. Bate, of Louisville, read a paper entitled *The Arthritic Diathesis*. (To be published in the MEMPHIS LANCET.)

Dr. Albert E. Sterne, of Indianapolis, contributed a paper entitled *A Trilogy of Diseases: Acute Articular Rheumatism, Endocarditis and Chorea*. He advanced considerations concerning the nature of these three affections and of the connection of chorea with a manifestly infectious disease, namely, acute articular rheumatism. If it be admitted that valvular disease is mainly rheumatic, or at least infectious in character, then the list of cases of chorea connected with the diathesis becomes much greater, inasmuch as from 25 to 50 per cent. (Osler) of cardiac patients give a history of chorea. Looking at the question impartially, it seems almost imperative to assume an intimate relationship between the three diseases.

PROCEEDINGS OF TRI-STATE MEDICAL ASSOCIATION OF MISSISSIPPI, ARKANSAS AND TENNESSEE,

Held at Memphis, December 20-22, 1898.

In the absence of Dr. Happel, the President, the meeting was called to order by the Vice-President for Tennessee, Dr. J. R. Sanford. Prayer was offered by Rev. F. P. Davenport. After the transaction of routine business the reading of papers was begun by

Dr. I. A. McSwain, of Paris, Tenn., who read a paper on *Diphtheria and Membranous Croup*. He began by saying that the two diseases were the same—membranous croup being an old name for laryngeal diphtheria. The Loeffler bacillus being the recognized cause of the disease, a diagnosis needs to be confirmed by finding the bacillus in the membrane. After reviewing in a thorough manner the clinical history, cause, course and symptoms of the disease, its probable transmission by domestic animals, and noting the great changes in the attitude of the profession toward it, the treatment was summarized as follows: give antitoxin, the earlier the better, in full dose, using an American product. If you are not allowed to use it, quit the case. In case of doubt, err on the side of giving it. Locally, peroxide of hydrogen is the best remedy, applied by an atomizer. Calomel is needed early, and a close watch should be kept for complications. In general practice tracheotomy is often more convenient to do than intubation, when laryngeal stenosis demands one or the other. The mortality from the two procedures is about the same.

Dr. J. S. Stanley, of Mississippi, believes the diseases are separate, diphtheria involving the fauces and larynx and offering a good prognosis, membranous croup involving the trachea and proving fatal. He opposed antitoxin, which he had never used. His ideas were the result of his experience in an epidemic in 1874.

Dr. E. P. Sale, of Memphis, prefers a spray of resorcin, gr. x to f $\frac{3}{4}$ i, to any other local remedy, and while believing in antitoxin, has great faith in the cyanid of mercury internally. Dr. Sale thinks possibly "pip" in chickens is diphtheria.

Dr. Richmond McKinney, of Memphis, agreed with Dr. Sale as to the resorcin, and has seen better results in hospitals from intubation than from tracheotomy.

Dr. Wm. Krauss, of Memphis, reviewed the pathological difference between croup and diphtheria, showing them to differ according to the membrane on which the process rose, and not because of any difference in the cause. He was surprised to hear anyone oppose antitoxin, and suggested that as Dr. Stanley's mortality was about 90 per cent., he had better change his plan of treatment.

Dr. J. H. Reilly, of Memphis, spoke in the same vein.

Dr. W. A. Young, of Idaville, Tenn., read a paper on the *New Treatment of Fevers*, in which he reported good results from the use of viskolein.

Dr. Frank A. Jones, of Memphis, read a paper on the *Present Status of Medicine*, in which he deplored the fact that medicine today tended toward the laboratory and away from the bedside. He said that more energy was being expended in the discovery of microscopical causes of disease than in the study of the clinical symptoms, course and treatment. He cited many of the methods in use as fads, and after paying tribute to the great clinicians, mentioned the relative importance of their work as compared with that of those who depended more on the microscope, the X-ray, etc., than on bedside study.

Dr. Wm. Krauss, of Memphis, said, that while the trend of the paper was conservative, the effect of such a paper before a mixed gathering was bad. Modern surgery would be unknown but for laboratory research. The leading clinicians of the world depended more and more on laboratory aids. He was placed at a disadvantage, because he could not extol his own line of work, but thought Dr. Jones had made a mistake in reading such a paper.

Dr. J. H. Reilly, of Memphis, said that Dr. Jones did not believe a word of what he said.

Dr. Louise Drouillard, of Memphis, read a paper on *Phantom Tumors*, the paper being largely devoted to the consideration of spurious pregnancy and the importance and difficulty of its recognition.

Dr. J. L. Minor, of Memphis, read a paper on *Learning to See at Forty, First with One Eye, Later with Both*. (See the MEMPHIS LANCET, December, 1898.)

Dr. E. C. Ellett, of Memphis, read a paper on *A Clinical Contribution to (1) Malarial Keratitis and (2) Removal of the Ear Ossicles*. In a series of 15 cases of keratitis he had found the characteristic appearances as described by Kipp in 1880, and in the blood of these patients, without exception, some form of plasmodium had been found. No other series is recorded in which the diagnosis was confirmed by an examination of the blood. Five cases of removal of the ear ossicles were reported, the author being led to report on such a small number from the fact that no one else in Memphis has had any experience at all with this operation. In two cases suppuration was arrested, in one diminished and in one unaffected. In the last case, done for deafness, the result of chronic otorrhea, the hearing was improved twenty-fold.

Dr. M. B. Herman, of Memphis, read a paper on Multiple Hepatic Abscesses as a Sequel of Typhoid Fever. (See p. 23.)

The paper was discussed by *Drs. Saunders, Neely, Heber Jones, Martin, Goltman, Krauss, Crook and Meyer.* The point was made that the abscesses were not multiple, i. e. simultaneous, but several different abscesses forming at different times. Dr. Goltman thought the Johns Hopkins Reports mentioned several post-typhoidal liver abscesses. Dr. Saunders and Dr. Jones had seen the patient in consultation and agreed that a distinct typhoid fever preceded the liver trouble. Dr. Jere. L. Crook, of Jackson, Tenn., mentioned a case of abscess of the kidney following typhoid fever. Dr. Krauss said that typhoid fever being a mixed infection, the abscesses could not be positively ascribed to the typhoid bacillus.

Dr. F. D. Smythe, of Memphis, read a Report of Operations on Strangulated and Reducible Hernia. He advocated operation on all cases of hernia. In strangulated hernia he does not favor the use of taxis, but immediate operation. For the radical cure of hernia he prefers the Halstead operation.

The discussion was participated in by *Drs. Alfred Moore, Martin, Alexander, Sale, Goltman, Heber Jones and G. G. Buford.* The trend of the discussion was in favor of making reasonable efforts of reduction of a hernia by taxis, hot and cold applications, aided by posture, opiates and, if necessary, general anesthesia, before resorting to operation. The terms "strangulated" and "irreducible" hernia were confused.

Dr. W. W. Taylor, of Memphis, read a paper on the Surgical Treatment of Acute Infections of the Uterus. He stated that grave puerperal infections begin most often within the uterus. When the microörganisms enter wounds in the lower genital tract the infection spreads upward, the conditions in the uterus being more favorable to microbic growth. Puerperal septic disease travels not by the mucous surfaces, but through the lymphatics and blood-vessels. He adopted Bumm's classification of two primary forms of puerperal endometritis, putrid and septic. The former is the condition that had been called sapremia, in which there is absorption into the circulation from decomposing masses in the uterus. In this form of endometritis there is a zone of cellular infiltration beyond the necrosed decidua and this acts as a barrier to the entrance of germs. The treatment advised in putrid endometritis consists

in the removal of the decomposing masses within the uterus by means of the finger, placental forceps or large dull curette, and this followed by free irrigation and drainage by a strip of gauze passed to the fundus. By the use of the sharp curette the protective wall thrown out by nature would be destroyed and the infection would more readily pass on to deeper tissues. In septic endometritis, in which streptococcus infection especially is meant, the limiting wall already alluded to is not formed and the germs are directly absorbed by the lymphatics and vessels. It was advised that this form of endometritis be treated by the sharp curette, removing the entire infected mucosa. It was insisted that the operation be thorough, with the patient under an anesthetic. After curettage, irrigation and drainage is used as before, and the uterine cavity mopped out with pure carbolic acid. At the bedside it is often difficult to make a differential diagnosis between the two forms of endometritis that have been mentioned. When in doubt it is wiser to first explore with the finger or lightly with the dull curette, and if these measures do not give evidences of decomposing matter in the womb, then proceed with the thorough treatment advised for septic endometritis. He emphasized the fact that tightly packed gauze does not drain, and that in the class of cases under consideration the uterus is flabby and tends to retro-displacement into the hollow of the sacrum, and that it is especially in such conditions that the light gauze drain is effective. Dr. Taylor reminded his hearers of the soft and friable condition of the uterine wall, and that perforation, to be avoided, should be kept prominently in mind. In a general way he stated that abdominal or vaginal section is indicated whenever it is certain there is suppuration in the pelvis or abdominal cavity. A note of warning was sounded against a too hasty and indiscriminate performance of operation for puerperal pelvic inflammations, as in many cases where the pelvis is choked and intraperitoneal exudates surround the tubes and ovaries, complete absorption will take place with absolute rest, mild purgation, heat and blisters. Surgical interference is not indicated until it is certain that the exudate has undergone suppuration.

The paper was discussed by *Drs. Moore, Jelks and Sale*. The latter spoke of the value of quinin and irrigation in this condition.

Dr. E. A. Neely, of Memphis, read a paper on *Urethral Stricture*. (To be published in the MEMPHIS LANCET.)

Dr. A. B. Oliver read a *Report of Two Surgical Cases*, (1) *Cholecystotomy* and (2) *Amputation of the Penis for Cancer*. (To be published in the MEMPHIS LANCET.)

Dr. Frank Jones thought since a *laboratory diagnosis* of the latter case had not been made, the author should not assert that the growth was malignant.

Dr. William Krauss, of Memphis, read a paper on the *Diagnostic Value of Blood Examinations*. The paper was a resumé of the most convenient diagnostic methods as applied to blood. Leukocytosis differentiated inflammatory and most infectious diseases from other troubles. It was conspicuously absent in typhoid, malaria and tuberculosis. The textbooks did not all differentiate clearly the diagnostic points between leukocytosis and leukemia. The numerical differentiation should be dropped, as the morphologic one could alone be relied upon.

Dr. M. Goltman, of Memphis, commended the paper and corroborated the findings in the illustrative cases cited by the author, he having seen them.

Dr. Frank A. Jones also discussed the paper.

Dr. G. B. Malone, of Memphis, read a paper on *Apomorphia in the Treatment of Eclampsia and Other Conditions*, with report of cases. The author had treated one case of opium poisoning, one of asthma, one of hysterical convulsions, one of convulsions of childhood, and one of puerperal eclampsia, with the most gratifying results, and he hoped his paper would interest others in the more extended use of this valuable remedial agent. He does not believe apomorphia is dangerous in proper doses in diseases of childhood. The case of eclampsia had been treated by other methods by reputable men without success.

Dr. E. H. Martin, of Clarksdale, Miss., and *L. A. Yarbrough, of Covington, Tenn.*, related cases corroborative of the value of this drug.

Dr. Edwin Williams, of Memphis, read a paper on *Full Term Pregnancy and Two Months Abortion in the Same Woman at Two Days Interval*.

Dr. E. H. Martin, in discussing the paper, thought that this was a case of double pregnancy, the development of the other fetus having been arrested by pressure, differing in this respect from the essayist who thought this was a subsequent impregnation which was aborted as a result of the other labor at term.

The essayist, in closing, said he was not prepared to accept this view, as the woman menstruated during part of the gestation and had a bifid uterus ; besides there was no evidence of mummification.

Dr. Alfred Moore, of Memphis, read a paper on *Practical Aseptic Midwifery*. The physician, nurse, patient and surroundings should be as carefully prepared from an aseptic point of view as for a laparotomy. The vulvar hair should be cut. The woman, on falling in labor, should empty the bladder and bowels, take a bath, put on a clean gown, and should be confined on a special "mattress" made of gauze and cotton, and sterilized. Vulvar pads, also made of gauze and cotton, should be kept in a bichloride solution and wrung out before applying. Only one ligature to the cord is necessary, and douches and ergot should be withheld unless especially indicated. The advantage of the obstetrical mattress over the Kelly pad was emphasized, as the latter is not apt to be clean. The baby's eyes should be carefully attended to.

In the discussion it was suggested that such elaborate preparations, etc., were not possible, especially in country practice.

Dr. A. G. Sinclair, of Memphis, read a paper on *Operation in Cases of Squint—Some Indications and Contra-indications*. The different forms of squint having been defined and their causes given, it was held that operation before the age of six years is contra-indicated, because coördinate action of the external eye muscles is rarely fully established before that age, and therefore tenotomy of the contracted muscle during this period would be liable to result in the production later of a squint of the opposite kind from that for which the tenotomy was done. Only other methods of cure should be tried during this period. In all cases due to errors of refraction, operation is contra-indicated, unless full correction under atropin and the wearing of the correcting lenses, and use of atropin for weeks or even months fail to correct the squint. Paralysis is a contra-indication except in cases of partial recovery. In such cases it is sometimes possible to place the squinting eye in such a position as to give the patient single binocular vision while in the position he usually occupies when at work. Operation is indicated in cases due to congenital amblyopia, to changes in the retina or optic nerve, or to opacities in the refractive media, but only for cosmetic effect. With few exceptions, in all cases due to errors of refraction, whether cured by correction of those errors or by

operation, the correcting lenses must be worn permanently, otherwise there will be a recurrence of the squint.

Dr. J. L. Minor, of Memphis, does not give glasses a long trial, but if the eyes do not become straight while under the influence of atropia, he operates, even if the child is only three or four years old. He regards squint as a self-limited disease, many cases getting well at maturity.

Dr. E. C. Ellett, of Memphis, operates with great reluctance before the age of 12. In addition to glasses fitted under a mydriatic, he advises the use of a blinder over the good eye for part of each day, over-correction of hyperopia, and orthoptic exercises. He does not agree that many cases undergo spontaneous cure, but some do, and these, if operated on when young, will develop a divergence later, which is more disfiguring and more difficult to correct than a convergent squint. The cure by operation is seldom even a perfect cosmetic success, while treatment by the other measures often results in improvement in the vision of the squinting eye, and the restoration of binocular vision.

Dr. T. E. Edwards, of Memphis, regulates the treatment by the age at which the child starts to school. Thus he often operates on very young children, and always successfully, though he has not had much success with other than operative measures in treatment.

The President's Address was delivered by *Dr. T. J. Happel, of Trenton, Tenn.*, he taking as his subject "*Quo Vadis.*" He regretted the tendency to depreciate clinical experience for the more readily acquired laboratory methods. He did not think that microscopic corroboration was necessary to establish the correctness of a diagnosis, since disease has macroscopic as well as microscopic features. He spoke of the tendency of young men to rush headlong into specialties without preparatory general training and thorough post-graduate special study. He mentioned the evils of numerous colleges, numerous valueless proprietary products made to sell, the flagrant manner in which the abortionist advertises himself, the questionable methods of advertising resorted to by regular practitioners. But he gave due credit to the laboratory workers and specialists, who have worked out most of the great advances, and cautioned them to remember that they were but part of a whole, whose end is the relief of suffering and the preservation of life.

Dr. Morris J. Alexander of Tunica, Miss., read a paper on the *Therapeutics of Quinin*. He deplored the tendency to decry this useful servant, and to ascribe untoward effects to it. He had practiced in the Delta for eighteen years, and had never seen it produce hemoglobinuria. He thought quinin, used judiciously, was useful in many infectious diseases. The paper was a scholarly one, and the discussion brought out little dissension. Some members thought quinin might prove harmful in some protracted fevers in which it was of no benefit.

Drs. Nelson and Martin freely endorsed the paper.

Drs. Reilly and Sale were in favor of more caution.

Dr. E. P. Sale, of Memphis, read a paper *Concerning the Priority of the Use of Hyposulphite of Sodium in Malarial Diseases*. *Dr. G. B. Malone* had claimed to be the first to use it, especially in malarial hematuria, and attacked *Dr. Sale* at the last meeting of the society for not recognizing this claim. *Dr. Sale* proved that the remedy was first used in malarial diseases by *Polli*, of Milan, and in malarial hematuria by *C. F. Pharrs*, of Alabama.

Dr. G. B. Malone, of Memphis, accepted the proof submitted by *Dr. Sale* that he was not the first to use it.

The Discussion of Malarial Hematuria was opened by *Dr. Wm. Krauss, of Memphis*, with remarks along the line of the paper by *Dr. Goltman* and himself in the December number of the LANCET. He said the number of cases saved depended not so much on the medicament as upon constant attendance at the bedside. Rigors should be anticipated by diffusible stimulants, and other symptoms properly met.

The discussion was participated in by *Drs. Moss, Wilkins, Nelson, Alexander, Malone and Martin*. The concensus of opinion was against quinin therapy after the paroxysm had begun.

Dr. E. E. Haynes, of Memphis, read a paper on *When to Asepticize in Midwifery*. He favored the use of bichloride douches before labor, but does not use them afterward unless special indications arise.

The paper was discussed by *Drs. Taylor, Krauss and Deutsch*. They contended that, under normal conditions, the bactericidal property of the vaginal secretion was safer than that of antiseptics, and that ordinarily a proper toilet of the vulva and body of the woman was all that was required.

Dr. B. F. Turner, of Memphis, reported *A Spontaneous Symphysiotomy.* The patient was a dwarf with a contracted pelvis, and during attempted forceps delivery the symphysis separated, the soft parts being torn into the bladder. This was repaired after the child was delivered, and the woman made a good recovery.

Dr. Edwin Williams, of Memphis, mentioned a case in which the usual operation of symphysiotomy was performed with excellent result.

Dr. Richmond McKinney, of Memphis, reported *A Case of Laryngeal Tuberculosis Secondary to Tubercular Involvement of the Lymphatics of the Axillary and Infra-clavicular Regions—Treatment of Tubercular Laryngitis.* The laryngeal tubercle developed some months after the removal of the diseased glands. There was no ulceration and no treatment was advised except a change of climate. In regard to the treatment of tubercular laryngitis, lactic acid was the only remedy deemed worthy of mention.

Dr. F. D. Smythe, of Memphis, detailed the surgical treatment of the glandular affection.

Dr. E. C. Ellett, of Memphis, thought many effective means of treatment had been omitted, and mentioned formol, and especially cupric cataphoresis after the method of Scheppegegrell. Usually it is only a question of palliation, and orthoform, a new local anesthetic, is of great use in this way, as the anesthesia it produces lasts several hours.

Dr. J. F. Hill, of Memphis, has had better results from nitrate of silver, gr. x to gr. xxx to f 3 i, than from any other local treatment.

Dr. E. M. Holder, of Memphis, read a paper on the *Treatment of the Causes of Death in Abdominal Surgery.* He enumerated the causes of death as acute general septic peritonitis, which is nearly always fatal, but in which irrigation and drainage may accomplish something; hemorrhage, anesthesia narcosis, embolism, intestinal obstruction from adhesion, injury to viscera, shock, post-operative insanity, effect of ether on kidneys and lungs, and intercurrent diseases. To guard against these, a study of the patient's condition, careful and clean surgery, a careful anesthetist, drainage and care to avoid exposing the viscera, are necessary.

Dr. T. J. Crofford, of Memphis, uses saline injections freely, often leaving the abdomen full of water. He gives water freely up to an hour before operation.

Dr. Edwin Williams, of Memphis, spoke of tympanites after laparotomy, which may be relieved by the introduction of a long rectal speculum, after placing the patient on the abdomen, carefully supporting the wound.

Dr. W. W. Taylor, of Memphis, referred to the inadvisability of using antiseptic solutions in the abdomen, and that this difficulty had possibly been overcome by Webster (*Am. Gyn. & Obstet. Jour.*, Oct. and Nov., 1898) by the use of formol.

Dr. F. D. Smythe, of Memphis, thought most deaths were due to hemorrhage. He spoke of the advisability of quick and clean work. He also mentioned the use of strychnia in tonic doses for some days prior to operation.

Dr. Henry Posert, of Memphis, reported a *Review of Thirty-four Cases of Locomotor Ataxia*. He agrees with the majority of observers that syphilis is the commonest cause. He found lightning pains in thirty-three cases, the Argyll-Robertson pupil, loss of knee jerk and incoördination in all. He saw anesthesia and paresthesia along the ulnar nerve in many cases. Abducens palsy was frequent; ptosis present in three cases; no case of total ophthalmoplegia was seen. The disease was arrested by blindness (optic atrophy) in three cases. Sphincter control was impaired in thirty cases. He saw no head pains, apoplexy or convulsions. All the patients were white, and all but one male.

Dr. C. Travis Drennen, of Hot Springs, Ark., called attention to tactile anesthesia as a symptom. He has never seen nor heard of tabes in a negro, and it is rare in women. He does not attach so much importance to syphilis as a cause. Tabes is rare in Japan, where syphilis is common. It may be due to the large doses of mercury and iodides that syphilitics take. Negroes will not follow out treatment for syphilis, and women usually do not appreciate the importance of it—which may explain the rarity of tabes in them.

Dr. B. F. Turner, of Memphis, sees myosis and the Argyll-Robertson pupil almost constantly. He thinks the Charcot joint is frequently not recognized. Cases may improve, but are never cured. He has found the coal-tar preparations useful for the pains, but they must be given in very large doses.

Dr. Heber Jones, of Memphis, thinks the comparatively milder course of syphilis in negroes may explain their freedom from tabes.

Dr. Wm. Krauss, of Memphis, was glad to hear something said discouraging the heroic doses of mercury and iodide often needlessly given. He disagreed with the author as to tabes beginning after taking cold, being the result of such exposure.

Dr. F. D. Smythe, of Memphis, thinks about 99 per cent. of cases of tabes are due to syphilis.

Dr. M. Goltman, of Memphis, reported a *Case of Gun-shot Wound of the Chest and Cutting of the Axillary Artery, with Spontaneous Arrest of Hemorrhage, and Wounding of the Brachial Plexus*.

Dr. F. D. Smythe thought the author had had extraordinary results. A similar case of his own was not doing well, paralysis and neuritis persisting after several months. He criticized the application of ice where the main artery was severed. The nerve symptoms were doubtless due to pressure.

Drs. Posert, Neely and Reilly discussed the paper in the same vein.

Dr. Goltman, in closing, ably defended his position, quoting eminent authorities in support of his views. He contended that *Dr. Posert* had gotten somewhat mixed, as there is a very wide difference between the neuritis due to trauma, especially a bullet wound, and that due to other forms. He quoted *Mitchell*, who says that trophic changes occur sooner and oftener after traumatic neuritis than after simple neuritis, and the same authority also says that union of nerves may take place within a few days if the separation be only slight. *Dr. Goltman* claimed that he did not say that any branch of the brachial plexus had been severed; he merely said it had been injured, and reiterated the symptoms present in his case to prove that the nerves were injured and that a neuritis had followed which yielded promptly to the application of the ice, which is the most rational method of treating inflammation anywhere, nerves not excluded; that the ice, if most carefully watched, need not interfere with a very much embarrassed circulation, is shown by the result in his case.

Dr. S. E. Pincus, of Memphis, read a paper on *Chronic Urethritis*. (To be published in the MEMPHIS LANCET.)

Dr. C. Travis Drennen was struck by the great proportion of ulcers, and said this was not his experience.

Drs. Alfred Moore, J. L. Jelks and G. B. Malone defended the author's findings.

Dr. L. A. Yarbrough regretted not having heard the paper ten years ago.

Dr. C. R. Shinault, of Helena, Ark., read a paper on *Juvenile Gonorrhea*, and reported several illustrative cases.

Dr. E. H. Martin, of Clarksdale, Miss., reported *A Case of Auto-Hypnosis*. The patient had been a healthy boy until the summer of 1889, when, at the age of sixteen or seventeen he began to have these attacks of narcolepsy. The first seizure took place after violent exercise during very hot weather. He was found in an unconscious condition, from which it was impossible to arouse him. A physician was called in, but for nearly two weeks the young man would only partially awaken, to take food or medicine. During this time his physician said that he had pneumonia. After recovering his physical health he was subject to occasional seizures of deep sleep. In the midst of the family circle, often in the course of a remark, or while dressing or undressing, he would suddenly go into the most profound slumber. A few minutes later he would become somnambulistic and would talk to himself, or sing, or play on some musical instrument. Every effort to awaken him seemed futile. No amount of noise or physical discomfort would disturb his train of thought, and he could not be made to respond to anyone. In from twenty minutes to an hour or two he would suddenly awaken and continue whatever he had been doing when sleep overtook him. He had no recollection of anything that had happened during the sleep, or of even having been asleep. At this time he was strong and robust, though in a malarial locality and having frequent "bilious attacks." His physicians, finding the attacks of morbid sleep more frequent during the period of "biliousness," decided that the liver was at fault and the treatment was directed entirely to that organ. About two years after the beginning of the trouble the patient lost his oldest sister, of whom he had been very fond. By this time the "sleep epilepsy" had become almost a daily occurrence. Shortly after the death of his sister he one day began talking to her, during a somnambulistic period, as though she were present. He seemed to elicit from her a full description of the life to come. During the next three years he held these daily conversations with his dead sister, much to the consternation of his family, and at times seemed to become telepathic. At any rate he would repeat during this sleeping condi-

tion his sister's supposed remarks about occurrences taking place at a distance, and letters received later would substantiate the assertions made. During his normal condition he would not remember any of these conversations, in fact he seemed to have no recollection of having been asleep and would always, when waking up, continue whatever he had been engaged in when the seizure came on. In April, 1893, he came to me for treatment. I found him in good physical health, but very nervous, in the lay sense of the word. In fact he was almost a useless member of society, as he could engage in no business, could not leave his house for any length of time, and was oppressed with the feeling of being an outcast, for of course he had been told of his "spells," and was aware of the constant supervision under which he lived. Fortunately the family were not inclined toward spiritualism, and none of that sect found him out. His mind seemed entirely normal except that he was at times very irritable and liable to outbursts of temper greatly out of proportion to the causes arousing such. I decided that his was a genuine case of auto-hypnosis. He knew nothing at all of hypnotism or of the hypnotic condition; he did not, therefore, hypnotize himself, as so many of the "trance mediums" pretend to do. But through some defect, functional organic, in his mental machinery he would occasionally slip a cog, so to speak, and drop into the hypnotic state. The treatment plainly indicated was counter-suggestions. As any good hypnotic subject can by suggestion be "locked" by the operator against other operators, surely this man might, by appropriate suggestion, be locked against himself. Attempts to hypnotize him being unsuccessful, I finally secured control of him, hypnotically speaking, became *en rapport* during one of his attacks of somnambulism. Experiments in the ordinary hypnotic phenomena then proved the correctness of my diagnosis. Suggestion toward a cure was resisted. Awake he was very anxious to be cured, but during hypnosis he was very reluctant to giving up "seeing" his dead sister. I then understood my failure to hypnotize him. By giving a time limit and repeating the suggestions daily for three days, I succeeded in making the suggestion "take," and he has had no return after five years. He is now a useful member of society, a successful plantation manager, and a contented man. However, I have heard that he is still, at times, rather irritable and somewhat inclined to sud-

den anger, but the same can be said of many men, and plantation managers are often sorely tried. Still, I am sorry I did not think of suggesting away his temper while I had him in charge.

Drs. Moss and Buford discussed the able paper.

Dr. J. H. Reilly, of Memphis, read a paper on the *Microscopical Diagnosis of Typhoid Fever*. He quoted Gilman Thompson on the inadequacy of the Widal test, and endorsed the Ellsner culture method. He criticized the tendency of laboratory men to present scientific deductions as established facts and made the point that the bacillus of Eberth did not respond to the crucial requirements of Koch's law. The disregard of the clinical symptoms and the classic four-week gut pathology was to be deplored.

Dr. E. H. Martin objected to the tendency on the part of the practitioners to antagonize the laboratory men. Such discussions are out of place in an up-to-date medical society.

Dr. Wm. Krauss defended the Widal test, and called attention to the inadequacy of tests from fecal discharges. He discussed the modifications in the conception of all diseases since specific infection is recognized.

Dr. Smith Buford, of Raleigh, Tenn., read a *Report of Cases*. There were five cases of opium poisoning treated with atropin, strychnia and nitro-glycerin. He condemned electricity, which caused the death of one of his cases.

Dr. Happel presented the following resolution :

Resolved, That it is the sense of the Tri-State Medical Association of Mississippi, Arkansas and Tennessee that no one should be allowed to sell the various preparations of opium, chloral and cocaine except upon the written prescription of a registered physician of the States represented in this Association ; that a committee of nine be appointed, three from each State, to present this question to their respective State Legislatures and press its passage, and that this committee report back to this Association the result of its labors.

The resolution was adopted.

Dr. Happel also presented the following resolution, which applies to physicians who use morphine themselves :

Resolved, That it is the sense of this Association that any physician who habitually takes cocaine or opium in any form is utterly unfit for the duties of his profession, and this habit should by law revoke his license.

President Martin announced the appointment of the following committees for the States indicated under the Happel resolution :

For Mississippi, *Drs. Weissenger, Alexander and Harris* ; for Arkansas, *Drs. Culp, Drennen and Borum* ; for Tennessee, *Drs. Happel, McSwain and Krauss*.

NEWS AND NOTES.

WE wish you a prosperous new year.

DR. KENNEDY JONES is out, after an attack of appendicitis.

DR. A. WEBB, of Collierville, Tenn., one of the ex-presidents of the Tri-State Medical Association, is dead.

DR. W. W. TAYLOR has been elected to membership in the Southern Surgical and Gynecological Association.

THE Kentucky School of Medicine fight has been decided in favor of the Wathen faction against the Woody party.

MISS ERIN CROFFORD, the daughter of Dr. T. J. Crofford, after a serious illness of several weeks, is slowly improving.

DR. W. S. WEBB, of this city, was married to Miss Emma Reiter on November 21st. We wish them long life and happiness.

DR. JNO. G. CLARK, assistant gynecologist at Johns Hopkins University, will move to Philadelphia on January 1st, to practice gynecology.

DR. JNO. B. HAMILTON, formerly Surgeon-General of the U. S. Marine Hospital Service, and editor of the *Journal of the American Medical Association*, died at his home in Elgin, Ill., on December 24th, of peritonitis.

WE are pleased to note that the Mayor and Council contemplate putting the City Hospital under the medical supervision of a staff, the need of which we recently pointed out. The office of physician-in-charge bids fair to be superseded by that of superintendent, to be filled by a layman.

THE following officers have been elected for the Memphis Medical Society for 1899:

President—Dr. B. F. Turner.

Vice-President—Dr. F. A. Jones.

Secretary—Dr. E. M. Holder.

Reporter—Dr. R. McKinney.

THE meeting of the Southern Surgical and Gynecological Association was a success in every way. The gentlemen in attendance represented the best medical thought of today, and we were glad to have the privilege of entertaining so distinguished a body. A reception was given to them by Dr. R. B. Maury on the evening of the 6th, and by the Memphis Medical Society on the evening of the 7th.

THE following officers were elected for the Tri-State Medical Association of Mississippi, Arkansas and Tennessee for 1899:

President—Dr. E. H. Martin, of Clarksdale, Miss.

Vice-Presidents—Dr. Morris J. Alexander, Tunica, Miss.

Dr. C. R. Shinault, Helena, Ark.

Dr. J. P. Young, Ripley, Tenn.

Secretary—Dr. Richmond McKinney, Memphis.

Treasurer—Dr. Marcus Haase, Memphis.

LEWIS S. MATTHEWS & Co., medical booksellers, of St. Louis, have been tried for being party to the transmission of improper literature through the mails. The literature in question is a volume published in Paris entitled "Untrodden Paths in Anthropology." Since it is a subject allied to medicine, ordered by a medical bookseller for a physician, it would seem that the confiscation of the book and punishment of the parties is as unjust as the same procedure would be in regard to many medical books and even textbooks of obstetrics.

THE meeting of the Tri-State Medical Association, of which a full account appears in this number of the *LANCET*, was a full and interesting meeting enlivened by a few tilts between the microscopist and the macroscopist. We note as good signs of careful observation the unanimity of opinion on many debatable subjects. If we were to select from so many excellent papers any for special commendation, those of Drs. Martin and Alexander and the president's address deserve particular mention. Any reference to the meeting is incomplete without allusion to the efficient work of the secretary.

BOOK REVIEWS.

Any medical book can be obtained through the Lancet at publisher's prices, postage free. Terms cash. The usual discounts are allowed.

An American Textbook of Gynecology, Medical and Surgical, for Practitioners and Students. By American Teachers. Edited by J. M. Baldy, M.D. Second edition, revised. Philadelphia: W. B. Saunders. Price, cloth, \$6; sheep or half-morocco, \$7.

This book is the production of some of the foremost gynecologists of America. The first edition appeared in 1893. Its rapid sale and the advances in gynecologic methods during the past four years have necessitated the issuing of a new and largely revised edition. This edition is an eminently practical work, serving as a safe guide to the intelligent student, and as a manual for the use of the advanced gynecologist. Forty pages have been devoted to the important subject of "Menstruation and its Anomalies." The presentation of the subject is exceptionally clear and satisfactory. The chapter on "Pelvic Inflammation" is one of the most valuable in the book. This important subject is presented in the clearest manner. The illustrations of pathologic specimens are admirable. The clinical history of this diseased condition is truly described and according to nature. The treatment of it is reasonable and conservative. Every valuable therapeutic resource is utilized before recommending resort to surgical measures for removal of the diseased appendages. The teaching of the book is: "The ultimate treatment of pelvic inflammation is abdominal section in those patients who do not fully recover from the primary attack, and are left with their uterine appendages so diseased and disorganized that the symptoms produced by their presence either threaten life or so disable the woman as to incapacitate her for her daily vocation, and render her life a burden." In this teaching we fully concur. An exceedingly valuable and up-to-date chapter is that on "Diseases of the Urethra, Bladder and Ureters." The methods recently devised for the diagnosis and treatment of these diseases are clearly described. The demonstration of tubercle bacilli in the urine is well explained, and good illustrations are given of uretero-ureteral anastomosis, and of bladder implantation of the ureter. In the pages devoted to "Lacerations of the Soft Parts" the illustrations are abundant and clear. It is pleasant to observe here that the methods of our old friend, Dr. Emmet, conspicuously prevail. We regard the American Textbook an enlightened guide in matters pertaining to gynecology, and we warmly commend it for the use of practitioners and advanced students.

A Textbook on Pathology. By Alfred Stengel, M.D., Instructor in Clinical Medicine in the University of Pennsylvania; Professor of Clinical Medicine in the Woman's Medical College, etc., etc. With 372 illustrations and 848 pages. Philadelphia: W. B. Saunders.

The term "Pathology" is used rather indiscriminately by American writers. The author has given us a work which deals with pathology as well as morbid anatomy and histology. There is a truly physiologic, or rather patho-physiologic, tone to this book, which is written from the clinical standpoint, and therefore includes departures from the normal other than actual tissue change, e. g., displacements, malformations, etc. Special pathology is treated at greater length than in other works of this character. This enables the reader to find whatever changes a tissue is liable to under the head of that tissue; thus a student is not misled into expecting a carcinoma of the mamma to look like a cervical or intestinal cancer. The formula for Ziehl's solution is better than the one usually given, this being too strong for good work. The text represents the very latest views on matters of a controversial or unsettled character. The illustrations are well chosen to elucidate the text, and well executed. Microscopic appearances are

freely pictured, and this is a distinct advance over similar works. As a ready reference book for the general practitioner it presents features not found in any other work, and we bespeak for it an extensive sale. For the student it will be found more useful to follow lectures on general and special pathology. This being the intended scope of the book, technique has been largely eliminated.

The Phonendoscope and its Practical Application. Translation of lectures delivered by Aurelio Bianchi, M.D., Parma, Professor of Preparatory Clinical Medicine and Pathology. With 37 illustrations, with translations of special articles by Felix Regnault, M.D., of France, and M. Anastasiades, M.D., of Greece. Translated by A. Geo. Baker, A.M., M.D., Physician-in-Chief of the Chinese Medical Dispensary, Philadelphia, and author of prize essays entitled, "The Revival of Learning," "The Germans in America," etc. Philadelphia, U. S. A.: Geo. P. Pilling & Son, 1898. Price 50 cents.

This little volume of lectures will prove very interesting to those who devote their time exclusively to physical diagnosis, but will probably be of small value to the general practitioner. Few medical men can devote sufficient time to phonendoscopy to enable them to distinguish the lines of separation between the lobes of the lung, or the lobes of the liver, or the beginning and termination of the muscles. It requires a combination, perfect sound appreciation together with advanced technical skill. For those who have the time and inclination it will be very useful as a beacon in the path of medical progress. The book is nicely printed, paper is unexceptionable, and the plates very clear and well made.

Textbook of Obstetrics. By Barton Cooke Hirst, M.D., Professor of Obstetrics in the University of Pennsylvania. Philadelphia: W. B. Saunders. Price \$5.

The author of this volume has been a prominent gynecologist and obstetrician in the leading hospitals of Philadelphia for many years, and also during that time he has been teaching medical students in clinics, hospitals, laboratories, and in the lecture room. Thus it is that he has been well prepared to write a book on obstetrics, and to also know the needs of the medical student and general practitioner. In this book it has been his constant aim to condense the text as far as is consistent with a comprehensive treatment of the subject. That task has been well performed. In a short review it is impossible to run through the volume and point out its many excellent features, and we can only sincerely say that each part is a classical article upon its subject. It is an ideal and up-to-date book for the medical student and general practitioner. The binding is attractive, and the many illustrations are well executed.

The Sexual Instinct: Its Use and Dangers as Affecting Heredity and Morals.

By James Foster Scottt, B.A., M.D., C.M., late Obstetrician to Columbia Hospital for Women, and Lying-in Asylum, Washington, D. C.; late vice-president of the Medical Association of the District of Columbia, etc., etc. New York: E. B. Treat & Co. Price \$2.

In this volume the author has dealt briefly with a very serious and absorbing topic and so thoroughly and scientifically that we desire to commend it. In the introduction he justifies the writing of it by proving conclusively the importance of the subject as bearing upon the proper education of our youth. If there be any hope for the moral betterment of the race it must come through this means, and if this book reaches the proper hands its possibilities for doing good are untold. It appeals as much to the father as to the physician. The physiology of the sexual life is dwelt upon at some length, and in keeping with modern ideas. The section on abortion portrays the dangers well and is a strong plea against it. The sexual perversions are dwelt upon rather too briefly, and we think should be enlarged upon to complete the book.

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CLINICAL NOTES.

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THE MEMPHIS LANCET.

VOLUME II.

FEBRUARY, 1899.

No. 2

ORIGINAL ARTICLES.

CLINICAL COMMENTS ON PHLYCTENULAR OR SCROFULOUS OPHTHALMIA.*

BY H. GRADLE, M.D.

Professor of Ophthalmology, Northwestern University Medical School, Chicago.

Affections of the conjunctiva and cornea are so common in scrofulous children that they deserve the attention of the general practitioner as well as the specialist. According to various German statistics they comprise about one-sixth of all dispensary cases. Perhaps nearly as frequent in American dispensaries, they form a much smaller proportion of private cases, partly for the reason that scrofula is favored by poverty. Personal conversation with colleagues from Colorado at the last meeting of the American Medical Association gave me the impression that the disease is comparatively rare in the Western mountain States—a significant fact, to which I shall allude again. It has recently been pointed out by Guttman that these eye affections are more than one and a half times as frequent among girls as among boys. It is a disease of childhood, its greatest frequency being found between the second and fifth year of life; while after puberty it is very rarely observed, and only in persons whose disease began during childhood.

The characteristic first lesion is the phlyctenule, occurring either on the ocular conjunctiva, or even oftener on the cornea, but per-

* Read before the Chicago Medical Society, October 26, 1898.

haps most frequently at the corneo-scleral junction. Contrary to statements in many older textbooks, the phlyctenule is not a vesicle filled with fluid, but contains solid contents—leukocytes—although its transparency suggests serous fluid. This minute efflorescence breaks at its apex and disappears by absorption in five to eight days in uncomplicated instances. The majority of cases, however, do not present the typical rapid course, at least not after the first attack. For a serious aspect of this affection is its likelihood of recurrence, sometimes for years, and not rarely in multiple efflorescences. Quite commonly a phlyctenule leads to a very persistent irritation, either by changing into a small plastic or papular tumefaction or by producing a deeper, though circumscribed, corneal infiltrate. Either of these conditions may persist for many weeks, causing excessive and characteristic dread of light. Further modification of the original form of lesion may change the clinical appearances of scrofulous kerato-conjunctivitis. Instead of a round efflorescence we find occasionally a broad, diffuse tumefaction of the conjunctiva at the corneo-scleral junction, causing this membrane to extend a short distance over the cornea in the form of a very vascular cover. This condition, known as phlyctenular pannus, is a diffuse, superficial inflammation—so to speak, a cluster of ill-defined, coalescing phlyctenules—extending from the margin over on the cornea, and accompanied by “straggling” newly-formed blood vessels. Again, a phlyctenule originally situated on the cornea near its margin will in some instances cause a band of parallel blood vessels to grow from the vascular conjunctiva up to the corneal lesion, and to travel with the latter part way across the transparent cornea. Sometimes the phlyctenule changes into a papule before it attracts the vessels, while in other cases the vascular “tongue” is drawn forward by a corneal infiltration, with or without slight superficial ulceration. In any of these instances the condition is known as fascicular keratitis. Circumscribed (non-vascular) infiltrates following a phlyctenule may persist as such for many weeks, but may also at any time break down in the form of ulcers, with a tendency to eat inward rather than to extend in surface. Quite often such ulcers do not cease spontaneously until they have perforated the cornea.

Clinical analysis shows that the persistence of phlyctenules and their unfavorable metamorphoses depend in many instances on

various associated conditions. In the first place we find that the prognosis hinges largely on the underlying constitutional disturbance—a subject which we will discuss presently, after referring first to certain local and adjoining lesions of influence. Quite often the protracted course depends on association with disease of the conjunctiva of the lids, as proven by the prompt influence of appropriate treatment. The conjunctivitis may be of the type of simple chronic catarrhal inflammation, with congestion and slight thickening of the membrane and muco-purulent secretion. In this form daily application of nitrate of silver solution (2 per cent.) soon stops the conjunctivitis and influences the phlyctenular disease favorably. In other cases we find the condition known in German literature as “Schwellung’s-katarrh,” a form relatively little mentioned recently and almost wholly ignored in English works. It is a transient hypertrophy of the superior transition fold of the conjunctiva, causing it to bulge as a smooth vascular protrusion when the lid is turned. This may or may not be associated with catarrhal conjunctivitis. I have learned to regard “Schwellung’s-katarrh” as an important unfavorable, although by no means a constant, complication in protracted phlyctenular disease. My own experience in its treatment is almost limited to the use of nitrate of silver, which exerts a distinct though sometimes slow influence. When the 2 per cent. solution proved insufficient I have seen better results from cauterization limited strictly to the swollen zone with stronger solutions up to 10 per cent. in strength.

Another unfavorable factor in many severe cases is ulcerative blepharitis. This has seemed to be especially associated with deep corneal infiltrates or ulcers following phlyctenules, and a number of times the turning point in the course of the corneal lesion coincided with the time of treatment of the diseased edge of the lid. Nitrate of silver in the form of solid stick acts so promptly upon ulcerative blepharitis that I have not tried other means. Its action is, however, aided by the yellow oxide of mercury salve.

Eczema of the face or scalp is so often met with in connection with phlyctenules on the eye, that Horner and his disciples have named this eye disease eczematous kerato-conjunctivitis. I do not think this name is warranted by either the anatomy or the clinical course of phlyctenular efflorescences. Moreover, eczema is not as frequently associated with this eye disease in American practice as

it seems to be in Europe. It is a matter of observation, however, that in many children suffering from phlyctenules, the skin reacts to slight irritants by an eczematous eruption. Very characteristic is the occurrence of small inflammatory papules on the under lid and cheek, evidently from the overflow of tears from the inflamed eye. These papules, which do not resemble ordinary eczema at first, become purulent, and are then apt to change into an eczematous patch. That such cutaneous inflammation of the eyelid exerts an unfavorable influence upon the course of phlyctenular disease is often proven by the prompt improvement obtained by treatment of the eczema. Whether, however, eczema at a distance from the lids has any relation to the eye disease, is an open question. Observation rather suggests that recurrences of phlyctenules are less common where there is no skin disease, or after the latter has been healed, but it is difficult to speak with certainty on this point. It has even been claimed that the scalp irritation and excoriations due to lice are of etiologic importance in phlyctenular relapses.

Another condition often associated with this eye disease is purulent rhinitis. I wish to protest, however, against undue emphasis placed on this relationship, by pointing out that nasal disease is not always present in these patients. Indeed, nasal disturbance may even follow the phlyctenular eruption when the excessive flow of tears through the patent duct appears as a watery discharge from the nose and starts eczema at the vestibule. Yet true purulent rhinitis is common enough in scrofulous children. In its most frequent form it causes a characteristic thin sero-purulent discharge which quite often starts eczema at the nose. In this form there is always a slight nasal obstruction due to a moderate hypertrophy of the pharyngeal tonsil. Less commonly have I seen in connection with phlyctenules complete blockage of the nose from large adenoid growths. In the latter case, the discharge, when present, is not thin, but thick and purulent. It is difficult to decide how much unfavorable influence is exerted by the rhinitis or the post-nasal growth. The latter should of course be removed under any circumstances, and I am under the impression that after its thorough removal relapses of the eye disease are less likely.

While clinical observation has thus demonstrated the importance of various associated morbid conditions upon the course of phlyctenular disease, we are still in the dark as to the direct cause

of this affection. Many observers have sought for a microbe as the cause of the phlyctenule, but without results that can withstand criticism. Gifford, who like some others had found staphylococci, did not consider their etiologic importance as established. At the meeting of the Heidelberg Ophthalmological Society in August, 1897, Axenfeld reported his own extensive researches on 100 cases, which had shown fresh phlyctenules to be practically devoid of microbes, demonstrable by culture, which statements were not contradicted by Bach, who had formerly attributed an etiologic role to the staphylococcus. Hence, no matter how probable the view appears that each phlyctenule is the reaction to a local infection coming from without, it must be admitted that the search for such specific microbes has not been successful in the hands of competent bacteriologists. And similarly, while it seems most logical to attribute the metamorphoses and complication of phlyctenules to secondary infection, this, too, has not yet been proven.

It is admitted, however, by almost all observers, that phlyctenular disease occurs principally, if not exclusively, in *scrofulous* children. There are a few apparent exceptions to this rule, but the more thorough our inquiry into the general health, the fewer are these exceptions. In view of the impossibility of accurately defining scrofulosis, I cannot regard these exceptions as real. It is now known that some of the manifestations of scrofula are in reality tubercular lesions due to the presence of the tubercle bacillus. Such are the enlarged lymphatic glands and the joint diseases, the former a feature demonstrable in most cases of scrofula. But even when such enlarged tubercular glands cannot be demonstrated during life, autopsies usually show tubercular disease in glands in a deeper situation. On the basis of such demonstrations the view has been put forward (most forcibly by Koch) that scrofula is identical with chronic poisoning of the infantile organism by small quantities of tubercular toxins. Strong evidence in its favor has been furnished by Koch's disciple, Petruschky, by both the characteristic febrile reaction as well as the ultimate beneficial results from the use of tuberculin in scrofulous children. This theory regarding the nature of scrofulosis is certainly based on much more definite facts than the former vague idea of malnutrition dependent upon unknown causes.

This view of scrofula does not imply that all the manifestations

of the disease are tubercular lesions. Direct research has shown the *absence* of tubercle bacilli in most instances of eczema, of enlarged pharyngeal or faucial tonsils, and of purulent discharge of the middle ear. It is true that tubercle bacilli have *occasionally* been found in eczema crusts (Demme) and the enlarged tonsillar tissue, but these instances represent only exceptional and secondary complications. But clinical observation fully confirms the opinion that the tubercular poisoning of the body constitutes an important underlying and predisposing condition for all those manifestations of scrofula which are not themselves the direct result of the presence of tubercle bacilli.

My own observations have suggested to me the opinion that phlyctenules, too, are a reaction of the ocular tissues, occurring mainly, if not exclusively, in the subjects of so-called "latent" tuberculosis. Indeed, the term "latent" is not quite appropriate. Although the tubercular glands may not constitute a striking lesion, or may even escape detection by reason of their situation, they are still the source of poisons sent into the circulation, and responsible for the malnutrition and imperfect power of resistance of the scrofulous organism. I again wish to emphasize that there is *no* reason to suspect the phlyctenules themselves to be tubercular lesions, due to the local presence of tubercle bacilli. Their transient nature in favorable cases contradicts such an assumption absolutely. But it is to my mind highly probable that the direct irritant, whatever it be, which causes the eruption of phlyctenules, can only accomplish this in subjects whose defensive power is undermined by tubercular poisoning.

Some years ago I made diagnostic tuberculin injections in four children with ulcerating infiltrates of the cornea following phlyctenules. In all of them the febrile reaction demonstrated tuberculosis, which indeed was to be expected in two of the instances on account of palpable cervical glands. But the constitutional disturbance was accompanied too by slight but unmistakable local reaction, indicated by increased vascularity of the affected eye. On continuing the injections, three of the cases showed a prompt change from progressive ulceration to absorption and incipient repair. In the fourth, extensive sloughing of the cornea was not arrested.

On account of the prevalent prejudice against tuberculin I have

not continued these observations. They are too few in number to be decisive, but they confirm the views here presented.

The surest means of preventing relapses of phlyctenular disease are the hygienic measures which experience has proven to be the best treatment for scrofula and tuberculosis. As the most important I would rate an out-door life. Children with these eye affections are but too often kept confined on account of their dread of light or from fear of "catching cold." The photophobia can be relieved best by a shade, which enables them to tolerate the light of the playground. A bandage is never an advantage, and a distinct detriment when conjunctival disease is present. In this connection I would also refer to the advantage of the Rocky Mountain climate, both on account of its unquestionable influence upon tuberculosis, as well as on account of the alleged infrequency of scrofulous ophthalmia. Colorado physicians seem unanimous in their statement regarding the rarity of scrofulous manifestations in children, and I personally must admit the fact that I have nowhere seen such a lot of vigorous, rosy-cheeked school children as in Colorado.

In the next place, proper feeding should receive attention. These children are often poor eaters. Even among the poor they often get undue indulgence in sweets, besides the improper diet suggested by ignorance or necessitated by poverty. The proper diet should of course consist principally of bread and butter, meat and milk (boiled if not obtained from tested cows). The poor cutaneous circulation, and probably the tendency to eczema, are benefited by daily baths. Ocean bathing has long been recognized in Europe as a potent measure in the treatment of scrofula.

Of all therapeutic measures against scrofula I would accord the first rank to the surgical removal of the enlarged pharyngeal tonsil, if enlarged sufficiently to cause even transient nasal obstruction. While the good effects of this operation, when indicated, are apparent by the general improvement of health, and can often be measured by the increase of weight, I am not so positive as to its direct influence upon the eye, but still have the impression that it helps to guard against relapses. I have obtained a similar impression concerning the advantage of codliver oil. In poorly-nourished children its benefits can often be measured by the scales, provided it is tolerated by the stomach. Regarding so-called alteratives as

well as tonics, for instance, the syrup of iodide of iron, I cannot resist the impression that in the few apparent successes the alleged benefits are attributable to the other directions given or to spontaneous changes in the disease, while in the vast majority of instances a critical observation shows no effects whatever from their administration.

The hygienic treatment of the underlying condition has, however, no influence upon the attack of phlyctenular disease at the time, at least not in cases of moderate duration. The typical, uncomplicated phlyctenule runs its short course, influenced by either constitutional or local measures. But when its course is delayed, or when the metamorphosis and complications previously referred to occur, local treatment shows its influence. In describing the associated or complicating lesions which exert an unfavorable influence upon the phlyctenule, I have also detailed their treatment.

A protracted irritation, kept up by a slowly-disappearing phlyctenule, or by a superficial keratitis, is unmistakably influenced by the inspersion of calomel. Contrary to textbooks, I have seen the best results by using the calomel several times per day. Deeper corneal infiltrates are not benefited by calomel. The vascular forms of keratitis have seemed to me to react a little more definitely to yellow oxide than to calomel, although the former often fails as well. Atropin is of very decided benefit whenever there is a sufficient degree of ciliary irritation. It is of course somewhat arbitrary to define the exact indications for atropin. Whenever a phlyctenule, or its transformation into a papule, produced only a localized ciliary injection, atropin did not seem to me to be of any influence, but in cases where the vascularity extends completely around the cornea, this agent almost invariably manifests its action by diminishing the photophobia and vascularity, and by apparently hastening recovery. I find also that the state of the pupil furnishes an index of the benefit to be expected from atropin. When the pupil dilates at once *ad maximum*, the further use of atropin has always seemed to me useless, as judged by its action upon the objective symptoms, while in those instances in which the pupil was narrowed and responded only imperfectly to the first drop of mydriatic, its continued use proved of distinct influence upon the severity and duration of the irritative condition.

THE ARTHRITIC DIATHESIS.*

BY R. ALEXANDER BATE, A.B., M.D.

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The term diathesis is applied to an inherited predisposition to alterations of nutrition.

Nutrition consists of the transformation of non-living molecules into living cells (assimilation) which undergo chemical changes with oxygen (reaction), producing waste material that in time is thrown off to make room for fresh cells (disassimilation). Nutrition is controlled by the nervous system and is modified by age, sex, climate, food, geographical and geological position, occupations, manners and customs, hygienic conditions, variations of light, heat, moisture and atmosphere (environment). Continuous subjection to any of these conditions modifying nutrition becomes apparent in the progeny of individuals, and this functional alteration of nutrition causes a predisposition to pathological conditions, or a pathological condition itself, known as diathesis.

Bouchard defines constitution as including all that is concerned with the structure and framework of the body, while the word temperament includes everything that pertains to the individual characteristics and functional activity. Constitution and temperament are the gifts of heredity, and either healthy or morbid are transmitted from parent to progeny. Hence diathesis is morbid temperament.

Two diatheses are admitted—scrofula, or a predisposition to tuberculosis, and arthritism, or a predisposition to certain diseases characterized by retardation of the processes of nutrition. The latter is for our present consideration. The alterations in arthritism are purely functional, and consequently there is no morbid anatomy. Since there are disturbances in which the retrograde changes produce a persistent increase in the products of disassimilation (such as uric and lactic acids), and since in some instances, in

* Read before the Mississippi Valley Medical Association at Nashville, Oct. 13, '98.

spite of diet and exercise, these materials are formed, we must assume that in this diathesis there is an inability on the part of the cells to produce oxidation even when the necessary articles are furnished.

The various manifestations of arthritism are those forms of arrested metamorphosis characterized by the presence or excess of organic acids. Some of these acids are volatile, and are eliminated by the skin and lungs; some are eliminated with the feces, and some with the urine; some may remain in the blood or be stored in the tissues; some effect changes by increasing acidity, while others unite with bases and do not affect the relative reaction of the fluids. Consequently, we have the manifestations or symptoms of arthritism varying according to the stage at which metamorphosis is arrested, and according to the character and consequent retention or channel of elimination. Thus uric acid, the most prominent product of disassimilation, causes one class of diseases when it is in solution in the blood, and another totally different class when it is precipitated into the tissues.

The diseases generally conceded as dependent upon the arthritic diathesis are: acid dyscrasia, rickets, osteomalacia, obesity, lithiases—embracing biliary, renal and pancreatic—diabetes mellitus and insipidus, rheumatoid arthritis, articular and abarticular rheumatism, gout in all its phases, the constitutional insanities, anemia, eczema, neuralgia, migraine, arterio-capillary fibrosis, nasal, bronchial and cardiac asthma, hemorrhoids, biliousness, dyspepsia, paralysis, neurasthenia, hysteria, epilepsy, Reynaud's disease, albuminuria and Bright's disease.

In other words, as has been taught for some time, disease may be divided into two classes: those having an external or foreign cause, as the microbic diseases, and those having an internal or auto-cause, as the errors of metabolism. In the microbic type, the oxygen is extracted from the blood by these foreign sources; in the metabolic type, functional alteration or deficiency lessens oxygenation. Haig and Bouchard likewise strongly suggest that the action of drugs depends upon their power of increasing or diminishing this or that step of metabolism. Various forms of auto-intoxication are paralleled by certain alkaloids.

In the first mentioned manifestation of the arthritic diathesis, acid dyscrasias, there occurs during the process of oxidation a num-

ber of organic acids, such as uric, hippuric, oxaluric, oxalic, lactic and its derivatives, caprylic, caproic, valerianic, butyric, propionic, formic, acetic, stearic, oleic and palmitic, resulting from the incomplete oxidation of nitrogenous, saccharine, starchy and fatty substances, also from cholesterine, from the pancreatic juice and peptones, and from glycocol. Those found in the alimentary canal, as lactic, its derivatives, etc., become absorbed and pass into the circulating liquids of the body and the tissues, where they undergo more or less transformation and elimination through the excretory organs. Carbonic and uric acids are usually combined with bases, and do not by their presence increase acidity in the tissues. Formic, acetic, butyric, and several other volatile fatty acids are eliminated by the skin; butyric and cholalic also with the feces; renic, hippuric, oxaluric, carbonic, taurylic, damaluric, damalic, succinic and oxalic acids with the urine. Hydrochloric may exist in excess in the stomach, but more frequently the acidity is produced by the presence of some of the organic acids, as a consequence of fermentation induced by the presence of microphytic ferments.

In rachitis the primitive blood changes are believed to be an excess of lactic acid, which holds the phosphate of calcium, etc., in solution, thus preventing the formation of infantile bone.

Osteomalacia, on the other hand, occurs in the adult, and an excess of lactic acid dissolves the already formed bone.

Obesity seems directly dependent upon oxidation. In addition to fat formed directly from food, there is a certain amount formed during retrograde metamorphosis, both of the nitrogenous and albuminoid constituents of the tissues. Obesity occurs in the anemic on account of the diminished blood current being insufficient to carry a normal amount of oxygen; likewise in the paralyzed, the nerve cells being deficient. Oxidation of emulsified fat is more difficult than if the fat is saponified, consequently arrest of the action of the pancreatic juice by the too acid contents of the stomach being passed into the intestine causes fat to be stored up.

Diabetes mellitus we find alternating with obesity and following improved hygiene or increased oxidation in osteomalacia. In diabetes insipidus probably the nervous system is first affected by retention of uric acid, since we have the disease following lead and alcohol poisoning and sudden refrigeration of the body, which things Haig has shown favor the precipitation of uric acid by rais-

ing the acidity of the blood. Dilatation of the capillaries of the kidneys may be the immediate result of mechanical obstruction in the form of the precipitated uric acid in the arterioles.

In biliary lithiasis the cholesterine becomes precipitated from the bile when the calcium salts unite with the organic acids to form insoluble salts.

Renal calculi result directly from the acids, uric acid being the most frequent form.

Pancreatic calculi are dependent upon the precipitation of the calcium salts from an acid medium.

Rheumatoid arthritis, according to Haig, is one stage of the condition known as gout. He reports a post-mortem at St. Bartholomew's Hospital in which Sir Dyce Duckworth observed rheumatoid changes, that is, erosions without urates, and gouty changes, or erosions with a deposit of urates in the joints, in the same cadaver. In the rheumatoid joint the urates had been dissolved out and eliminated in the urine prior to death.

Rheumatism, gout and valvular diseases of the heart are produced by the deposit of the urates in the tissues by increased acidity of the blood.

Asthma, cephalalgia, epilepsy, arterio-capillary fibrosis and all the other conditions are dependent upon uric-acidemia, which causes increased arterial tension and affects the interstitial circulation of the various organs and tissues.

In speaking of these diseases as dependent upon arthritism, it is not meant that no other causative factors exist, nor that these conditions may not be acquired; but the essential condition corresponds with the "arthritic diathesis." Bouchard says: "The reaction of a disturbed nervous system by corrupting for the moment nutrition can produce morbid opportunity, and may modify nutrition in a lasting manner and develop an acquired diathesis. The acquired diathesis once established may become transmissible."

Horbackzewski has shown uric acid may be derived from nuclein. Haig believes a proportional amount of urea is also derived from nuclein, and the uric acid and urea are always formed in the system in the proportion of 1:35 or 1:40. If a less proportion of uric acid is eliminated, it indicates that uric acid is being retained in the tissues; if a greater proportion is being eliminated, it indicates uric acid previously stored up is being dissolved out.

Since uric acid is so frequent a factor in disease, the treatment must embrace such measures as both free uric acid from the blood and from the system. In general, the treatment is dietetic, hygienic and medicinal. Haig says, "The one thing needful is a proper diet," and restricts all red meats, coffee, tea and eggs. Breads, milk, vegetables, fruits and nuts are permitted. In rickets and osteomalacia, however, that food richest in phosphates should be selected—that is, eggs, fish, cracked wheat and oatmeal. Strawberries, tomatoes, bananas, and excessive saccharine materials are generally harmful in the uric acid diseases.

The hygienic treatment consists in out-door exercise, mountain climbing, sea voyages, baths and massage, to increase oxidation. Flannels should be used to prevent sudden refrigeration of the surface. A dry, warm climate is the best.

The medicine should vary according to the individual type of the disorder. The salicyl group is best to eliminate uric acid from the system; the iodides remove it from the blood and lower arterial tension. Hence the prognosis in such disorders as glycosuria, albuminuria, asthma, lithiasis and the arthropathies, when observed before morbid changes occur, is much better than the former uncertain results permitted. Cells once destroyed are not replaceable, but since by exercise, diet and the uric acid solvents we can prevent the further destruction of cells, the disease may in many instances be arrested.

Good results from anti-lithemic measures in the disorders of arthritism are reported by such observers as Lyman, Potter, Shoemaker, Wilcox, Olevé and Hunter, Bigelow, Satterthwaite, and many others too numerous to mention.

Personally, I have experienced favorable results from anti-lithemic remedies in glycosuria, nasal and bronchial asthma, lithiasis, albuminuria, obesity, eczema, paresis, rheumatism, angina pectoris, recurrent typhlitis, vertigo, biliousness, dyspepsia, neuralgia, and migraine.

Second and Burnett streets.

TRAUMATIC TABES.—Trummer reports three cases of tabes commencing immediately after a severe traumatism—fall from a carriage or injury from a falling tree. In one case the arm was crushed and tabes developed in the course of an attack of influenza soon after. No cause for the tabes could be discovered aside from the traumatism in either case.—*Journal of the Amer. Med. Assn.*

FULL TERM PREGNANCY AND TWO MONTHS ABORTION IN THE SAME WOMAN AT TWO DAYS INTERVAL.*

BY EDWIN WILLIAMS, M.D.

MEMPHIS.

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This is a report of a case which occurred in the in-door service of the Lying-In Hospital in the city of New York during the month of October, 1897.

A Russian Jewess, primipara, aged 25, applied to the hospital for admission about 6 in the morning, having irregular pains. Upon examination, the os was found to be dilated sufficiently to admit one finger, with unruptured membranes. It was a vertex presentation, the head being above the brim. She was put into the waiting ward, and her labor progressed uneventfully, she being delivered, at 3 in the afternoon, of a living child, which weighed $8\frac{1}{2}$ pounds. No forceps were used. The placenta was expressed about thirty-five minutes after the birth of child by the Credé method. The child was slightly cyanosed at birth, due to the administration of chloroform to the mother, but cutting the cord and allowing it to bleed about two drams before it was ligated, brought about a healthy reaction to the skin, and a very normal healthy cry from the child. The mother was given a vaginal bichloride douche at a strength of 1-5000, and after an hour's holding of the fundus by a nurse, her abdominal binder, breast binder and vulva pads were put on and she was placed in bed.

Forty-seven hours after the woman was delivered she had a slight chill followed by a temperature of $100\frac{1}{2}^{\circ}$, a pulse of 106, and severe cramp-like pains in the uterus, which were at first diagnosed as after-pains. Her pulse rate began to increase slowly, although her temperature never rose above its original height, and she had only the primary chill. When her pulse had risen to 116 it was decided to curette for probable retained secundines. The cramps had by this time almost subsided. She was accordingly transferred to the operating table and put in the usual position. Chloroform was the anesthetic used. Before the speculum was introduced she was examined bimanually to test the boggiess of the uterus. When the hand, which had been examining through the vagina, was removed, a two-months crushed fetus followed it into the world, much to the astonishment of every one present. A bivalve speculum was at once introduced, and, as soon as a dilator and sound were put into the cervix, a peculiar condition was made manifest. The uterus was divided into two unequal parts by a septum running from the internal os to the fundus. The septum was composed apparently of uterine mucous membrane, with a few muscle fibers, and was about $\frac{1}{10}$ of an inch in thickness. This septum divided the uterine cavity, as I said, into two unequal parts, so that each tube and ovary communicated with one side only. The large cavity (right) was the one from which apparently the living child was born, and occupied about four-fifths of the uterine interior. The smaller (left) occupied one-fifth. There was a quantity of lochia

* Read before the Tri-State Medical Society of Miss., Ark. and Tenn., Dec. 20, 1898.

oozing from the right side, and little, if any, from the left. The sound was carefully swept along the septum, but there was apparently no point of communication between the two cavities except in the cervix. An intra-uterine douche (bichloride 1-10000) was given in both cavities, bringing away nothing, however, but a few clots. A curettage was not performed. The woman was put to bed; had no reaction, and her pulse and temperature soon reached normal. She had an uneventful convalescence, nursing her child freely on the fourth day.

This form of uterus is called in Hart & Barbour's Gynecology the "uterus septus," and in Lusk's Midwifery "uterus semi-partitus." The right side of the woman's uterus was fecundated and went on to term, and two months before she was confined she was again impregnated on the left side. The efforts made by the muscular walls of the uterus to expel the living, fully developed child caused the two months fetus to be mashed against the sides of the uterus. When the ovum from the left side was impregnated the fecundation evidently occurred at the only place where it could find a "foothold" and grow, namely, in the left horn of the uterus.

Why should not the fetus have been delivered at the same time with the living child? Why the chill, pulse, and temperature? And, in view of the constantly enlarging size of the larger fetus, how could the smaller have grown to two months, unless in the left horn, without being, to put it poetically, "strangled at its birth?"

Odd Fellows' Building.

FEVERS OF ALABAMA.*

BY CHAS. M. WATSON, M.D.

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The author deplors the fact that there are no textbooks upon the subject of Southern diseases, since such illustrious names as Sims, Nott, Gaines, Stone, Eve, Briggs, Cochran and others claimed the South as their home. He does not wish the inference drawn that Alabama is essentially a fever State; on the contrary, the most salubrious regions belong to it.

The modern aids to diagnosis are all dwelt upon to show how thoroughly we can recognize the patient's condition, and he makes

* Abstract of a paper read before the Tri-State Medical Society of Ala., Ga. and Tenn., Birmingham, Ala., Nov. 26, 1898.

a plea for a more general knowledge in microscopy, chemistry, physical diagnosis, the employment of the Roentgen ray, etc., since no general practitioner can be successful without at least an elementary knowledge of these branches.

No subject in the domain of medicine is more worthy of study than that of fevers. The State of Alabama is conveniently divided into three sections: First, the northern or mountainous part, embracing the Birmingham district and the Tennessee valley; second, the Black Belt, and third, all the flat pine country lying below the Black Belt. Malaria still enters into 80 or 90 per cent. of all the fevers in Alabama. Certain forms of fever prevail with more frequency in each of these sections than in the others. The eruptive fevers are pretty equally distributed over all of Alabama, and exist, as a rule, only in a mild form. In the southern portion we meet more frequently with dengue; in some parts of it with malarial hematuria, frequently with intermittent fever, but the most obstinate form found there is the pernicious remittent, a low form of fever resembling typhoid in its staying qualities. Some cases of genuine typhoid are found, but the more frequent prolonged fever is the pernicious remittent. There is also a mixed fever, partaking of the characteristics of both typhoid and malarial fever. Yellow fever is generally believed to be able to flourish only in the southern or gulf portion, but the author thinks there is no part of the State immune. In the Black Belt there is sometimes true typhoid, and in some localities quite a great deal of malarial hematuria, sometimes dengue, and sometimes remittent fever, but here is the home of the true intermittent—chills and fever—and where quinin does such excellent work. Here, also, is found the true bilious fever and the mixed fever of the South, typhoid, complicated with malaria. In the northern section the tendency is greater to true typhoid than in either of the other districts, the malarial element being largely wanting.

The conclusion from the above, says the author, is, that we have to deal with three principal forms of fever, namely, (1) true malarial, (2) a mixed fever, typhoid complicated with malaria, named typhomalarial by Dr Woodward, (3) and last, true typhoid fever.

The various types of malaria are then discussed, and the inference drawn that the more pernicious varieties are pernicious from local causes. The malignant malarias he divides into congestive

and the congestive hemorrhagic. The former includes the toxemia and the so-called congestive chill; the latter is malarial hematuria, hemorrhage from the kidneys—so-called yellow chills. This hemorrhage may appear as an epistaxis, sometimes as an intestinal hemorrhage, and, more still, there may be bleeding from the stomach, simulating the black vomit of yellow fever. Yellow fever and malaria are in so far analogous that this form of malaria is most prevalent during the heated term, and is killed out by the frost. They also (in Alabama) exist in greater degree the further south we go, and along the water course. The stomach is very much involved in malaria, and greatly so in yellow fever. The author questions the endemicity of yellow fever in the United States. All physicians, says the author, of all countries, who practice in malarious districts, agree that calomel and quinin in heroic doses give the very best results obtainable in pernicious malaria. Edson's aseptolin does good in some cases but is not a specific.

The diversity of opinion as to the treatment of malarial hematuria is next considered. The author says quinin, if used, should be given in very large doses *per os* or subcutaneously. Morphin with atropin and strychnia should be used if indicated. These will even depress the temperature.

As a tonic for pernicious and chronic malaria, Dr. Watson recommends the following prescription:

R̄ Quininæ sulphatis	℥ ij
Acidi sulphurici aromatici	℥ iv
Tincturæ ferri chloridi	℥ ij
Liquoris potassii arsenitis	℥ iv
Strychninæ sulphatis	gr. j
Elixir. aurantiæ quantum satis,	ft. ℥ viij

Sig.: Shake and give a teaspoonful in a wineglass of water before meals, and at bedtime if necessary.

A very worthy pathologist has said that "There is a form of malaria in this section, evidenced by a small, extra-corpuscular hyaline (or pigmented) body, which resisted quinin." He emphasized the fact that "unless clearcut paroxysms prevailed, quinin was useless, but to say off-hand that because a certain fever resisted quinin it was not malarial was both dogmatic and unscientific. The very authorities who make such statements do not even tell us when, how and what quantity to use in a given case." The laws of medicine differ from the laws of the Medes and Persians.

The typhoid fever in the camps of our soldiers in the late Hispano-American war admonishes us that we must regard typhoid fever from a prophylactic standpoint.

In Alabama most of the cases of typhoid complicated with malaria recover under judicious treatment. In the initial stages such fevers can probably be aborted, later they can be only ameliorated. Quinin has no decided beneficial effect upon typhoid or typho-malarial fever. The latter the author recognized by loss of correlation between pulse and temperature. The fever is preceded by a forming stage of longer duration than simple remittent, and is graver in character. There is no hybrid or metamorphosed condition, but the two infections exist side by side. The patients with full, rapid, bounding pulse recover more readily than those with the slow, harsh, corded pulse. The author thinks the former bespeaks the predominance of malaria. Sometimes there are decided and short intermissions in the fever. The two types of this fever have a temperature respectively above and below 103° F. The liver, spleen, kidneys and nervous system are markedly involved in the latter.

The treatment should be antiseptic from beginning to end, diet nutritious, pains, nervousness and temperature requiring special attention. Boric acid, salol, borolyptol, ergot, turpentin, camphor, strychnin, creolin douche, antikamnia, morphin and atropin, chloral and sulfonal, are mentioned under their respective indications. The Brandt method is advocated, aided by alcohol when needed. Acetanilid may be used judiciously. Some of the ingredients of Woodbridge's formula, used as indicated, acted beneficially in the author's hands.

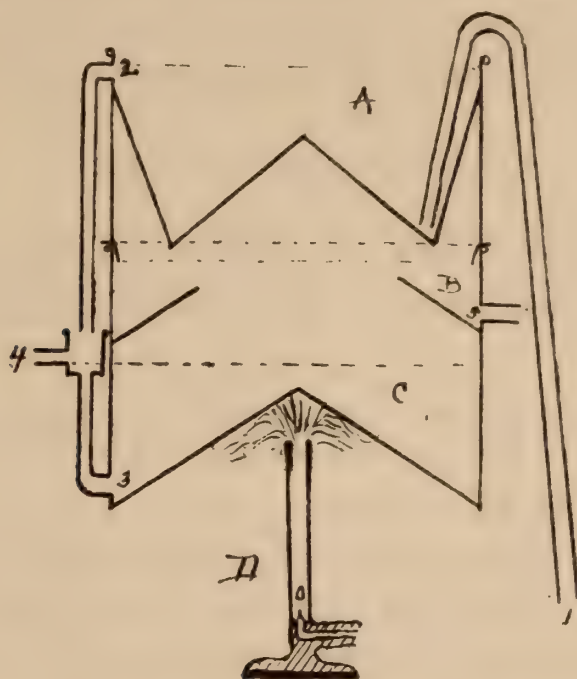
A SIMPLE SELF-FEEDING STILL.

BY WM. KRAUSS, M.D.

MEMPHIS.

When I opened the chemical laboratory of the Memphis Hospital Medical College I had expected to rely on a local dealer for the distilled water to be used in the laboratory, but this supply proving unsatisfactory, I was compelled to rapidly devise some means of supplying myself with a satisfactory distilled water. For

this purpose I designed the still of which the accompanying cut is a cross section.



The apparatus is 6 inches in diameter, and is in two main parts, which separate at the middle transverse dotted lines. The other dotted lines represent the water level in the respective compartments. The cut is, in the main, self-explanatory. A is a reservoir which acts as a condenser, and which is fed from a hydrant through the bent glass tube 1. The lowermost compartment, C, is the boiler, and the intermediate portion, B, is the condensing space, the distilled water coming off through the tube 5. When water is admitted through 1, the upper reservoir fills, and the surplus escapes through tube 2. The boiler remains filled by means of the tube 3 to a constant level, and when this is reached the waste escapes at 4.

One advantage of this still is, that on account of the very large condensing surface the water may be admitted quite hot into the boiler. This has also the advantage of driving off most of the carbonic acid gas from the surface of the water in the open reservoir, thus yielding a distillate which forms a perfectly clear solution with nitrate of silver from a water fairly well charged with carbonic acid gas. D represents a Bunsen's burner, which is connected with a two-foot gas tip from an ordinary fixture. The still yields about 4 gallons of water in twenty-four hours, with a consumption of about 50 feet of gas. When it is started it requires no attention whatever, and may be allowed to run day and night. With the

flame turned down low it will yield a half gallon of water over night. I believe that the evaporation of the gases, which takes place in this still before the water is admitted into the boiler, is a distinct advantage over most of the appliances now used.

Continental Building.

OXYTUBERCULIN IN THE TREATMENT OF PULMONARY TUBERCULOSIS.

BY A. J. RICHER, M.D.

Lecturer in Hygiene and Demonstrator of Bacteriology,
University of Bishop's College, Montreal.

In 1896 Dr. J. O. Hirschfelder, of San Francisco, inspired by the fact that many cases of tubercular peritonitis were benefited by celiotomy, conceived the idea that the benefit was likely obtained through the oxidation of the toxin (eliminated by the microörganism) into an antitoxin when air was admitted into the heretofore closed peritoneal cavity. The idea no doubt was a very ingenious one, suggesting the probable benefit which might be derived in treating pulmonary tuberculosis by inoculations of an oxidized tuberculin, i. e., tubercular antitoxin obtained artificially by culture, extracted by Koch's method, and oxidized by means of peroxide of hydrogen at a moderately high temperature. The resulting product, which closely resembles its parent (tuberculin) physically, he calls oxytuberculin, and, as claimed by Dr. Hirschfelder, enjoys perfect innocuity when injected hypodermatically, even in large doses, into healthy individuals.

My first clinical test of oxytuberculin was commenced on the 11th of December, 1897.

A young man of 22, with a tubercular family history, was examined early in November, when the left apex showed signs of extensive infiltration, while the right showed signs of rather extensive softening, with here and there over both lungs some moist râles. As far as could be ascertained, the patient had been coughing for eighteen months but had not been under any lengthy observation, neither had he been seriously treated. At this time dyspnea was very marked upon the slightest exertion, emaciation advanced, cough troublesome, and expectoration profuse. The sputum showed Koch's bacilli in large numbers, along with streptococci. The tubercle bacilli were here and there slightly granular in appearance, but took the stain well. The pulse on the 15th of November was 100 in the evening, and oscillated between 100 and 70, following the temperature curve, which varied from 100° to 97°, with morning remissions. Respirations varied from 18 to 26. There had been no hemoptysis. On December 11th he

received his first injection of oxytuberculin, 5 c. c., which was continued daily for six days, when the dose was increased to 10 c. c. for about twenty days, with an occasional day upon which no inoculation could be made, owing to severe reaction. The temperature curve during the early part of this treatment was increased, as well as the pulse and respiration curves. Usually, after a 10 c. c. injection, a temperature of 101° would fall to 98° . After the use of the first 100 c. c. the cough and expectoration had diminished, the patient felt stronger, and the dyspnea was less marked. Encouraged by this result, the treatment was continued until 400 c. c. of oxytuberculin had been injected hypodermatically. The last 200 c. c., however, did not produce the same reaction in bringing down the temperature, even when 15 or 20 c. c. were injected at a time. The treatment was here discontinued. Creasote and syrup hypophosphite compound had been given throughout, and were continued without much effect.

After this patient had received his first 100 c. c. of oxytuberculin the bacilli in the sputum showed distinct signs of sporulation, and this sporulation (which may be only a pseudo sporulation for a great number of bacteriologists) persisted for some time after the oxytuberculin injections had been stopped. This may have been only a coincidence, but is worthy of note, as it only occurred in this one case of mine, which proved fatal about seven months after the oxytuberculin treatment had been discontinued, the patient gradually declining, with persistent cough and expectoration, but without hemoptysis.

Case II. A man of 45, a mechanic with a good family history, was first seen in March, 1898, after a rather profuse hemoptysis. The apex of the right lung was softened, moist râles being heard back and front. There was some emaciation, loss of appetite, slight dyspnea on exertion, distressing cough, especially in the morning, with rather profuse expectoration, which was occasionally tinged with blood; night sweats not very marked, yet often present. This patient was given creasote and codeia and syrup hypophosphite compound. The sputum was examined microscopically and showed numerous Koch's bacilli. Oxytuberculin was injected, beginning with 5 c. c. every other day, and gradually increased to 15 c. c. for a final dose, completing the 100 c. c. in about fifteen days. When the sputum was again examined after the 100 c. c. of oxytuberculin had been injected the bacilli had entirely disappeared. Perhaps another coincidence. The evening temperature, which had occasionally reached 100° , was now normal; cough and expectoration much diminished, appetite improved, and gain in weight quite appreciable. This patient was under observation and treatment during seven weeks, when he was again allowed to go back to his work, and has since enjoyed excellent health.

Case III. A young man of 21, an office clerk, first consulted me in March, this year. In this case the family history was not very good. The father died of pulmonary congestion (?); mother living and apparently healthy. The left apex here was involved; a cavity about the size of an American silver dollar could be easily appreciated, with moist râles back and front in the upper half of this lung. In the right lung the expiratory sounds were prolonged, accompanied by a few sub-crepitant râles to be heard

chiefly in the upper half of this lung. The evening temperature often reached 101°, pulse 110; dyspnea upon the slightest exertion; chills, loss of appetite, emaciation and night sweats made a rather characteristic clinical picture of the disease, while the cough and expectoration were both troublesome and profuse. The sputum examined microscopically completed the clinical picture by showing an abundance of tubercle bacilli. The same treatment as in case II was here instituted, but although there was marked improvement after the first 100 c. c. of oxytuberculin, yet the bacilli in the sputum persisted, though somewhat decreased in numbers. Not feeling over-confident, especially after the disappointment in the treatment of the first case, I did not persist with the oxytuberculin. This was the middle of April. The weather was quite favorable, so I sent this patient to the Laurentian Mountains, where he lived almost entirely in the open air, braced up by constant stimulation. His medication consisted of wine of creasote with codeia and emulsion of petroleum. He made very rapid progress, gaining in weight while losing his cough. He was in my office a few days ago, and I failed at first to recognize him, so fat had he become. I examined his chest again. The left apex still showed the remains of the cavity, but no abnormal breath sounds anywhere. This patient can now walk five miles without dyspnea or lassitude. I have again examined the sputum, which is now free from tubercle bacilli.

This last case is strong evidence that the only reliable means of treating pulmonary tuberculosis at present at our disposal are *over-feeding, rest, open air*. This shows how urgently sanatoria for the treatment of this disease are required. The patients in these sanatoria are under constant observation and constant tuition, and when well again can utilize the knowledge acquired during the treatment in preventing others afflicted like themselves from being so many sources of infection, spreading the disease broadcast in our crowded cities.

To resume, I may here be allowed to observe that the beneficial effects obtained by celiotomy in peritoneal tuberculosis, which without doubt is due to the entrance of air into the peritoneal cavity, and likely to the oxidation of the toxin of tuberculosis, is not sufficient ground for the adaptation of somewhat similar methods in the treatment of pulmonary tuberculosis, where the development of the tubercle bacilli goes on under aerobic conditions, i. e., in the presence of the oxygen of the air, while in the peritoneal cavity the toxins are secreted under anaerobic conditions.

Now, if Dr. Hirschfelder had oxidized tuberculin obtained by anaerobic cultures, might not the results have been different?

Experimentation only can answer this question.

584 Wellington street.

ANESTHESIA.*

BY IRWIN LINDENBERGER, M.D.

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In taking up the subject of anesthesia, I will present a review of a number of authorities and clinicians, along with personal experience and observation. Concerning the previous preparation of the patient and other details which are of vast importance, but with which you are thoroughly acquainted, I will not deal, but proceed with the physiological action of the two principal anesthetics.

By inhalation chloroform vapor is carried to the lungs, or more particularly to the blood, and probably circulates in the blood in chemical combination with the hemoglobin of the red blood corpuscles. Chloroform has the power in part of directly destroying the red blood corpuscles, and in part of robbing them of their ability to take up oxygen and to drive out carbonic acid.

The physiology of ether is about the same as that of chloroform, except that it less often produces disturbances in the circulatory system, and consequently seldom causes death from syncope, but almost always from paralysis of the respiratory system.

The following modes of death from chloroform may be distinctly recognized:

1. From too concentrated a vapor. Clinical experience has repeatedly shown that death occurs immediately after a fresh supply has been poured on the mask. Death in these cases is by overdose, not absolutely as to quantity, but as to amount within a given time.

2. Death from surgical interference during partial anesthesia. High authorities teach that such reflex influence may proceed from impressions made by the surgeon, extend to the heart, and cause sudden cessation of its action. In many cases death has followed instantly on a painful impression; as to chloroform it is certain that a state of partial anesthesia is one of especial danger.

3. Death during the period of excitement. A very deep inspiration sometimes succeeds to a considerable cessation of respiration.

* Read before the Society of Physicians and Surgeons, Louisville, Ky.

If the air be then overloaded with vapor, the limits of safety may be passed with that one inspiration.

4. By paralysis of respiratory center. It has been maintained that this mode of death is peculiar to ether. Clinical records show that it took place thus under chloroform anesthesia in ten out of forty carefully observed cases. The Hyderabad Commission, some years ago, came to the same conclusion.

5. By paralysis of the nervous center presiding over the circulation.

From ether—

1. Death never takes place from inhalation of air too freely charged with the vapor, as is the case with chloroform.

2. It remains an open question whether surgical interference during partial anesthesia from ether is dangerous, as is the case with chloroform.

As to the apparatus and technique for administering chloroform, I prefer the Esmarch inhaler, if used cautiously, giving a proper admixture of air with the anesthetic (this latter to be emphasized). From all reports and statistics that I can gather, both as regards the number of deaths and the time of death (but these vary greatly), the consensus of opinion seems to be that the period when death occurs from chloroform is, at first, either from too concentrated a vapor, from surgical interference during partial anesthesia, or, better, from a combination of the two, as they, as a rule, go together, the patient making some slight resistance at the first touch of the knife, leading to the abundant exhibition of concentrated vapor to get him under the influence of the anesthetic quickly, with sometimes direful results. I recall two deaths from one or both these causes. Doctor Moffat, of Toronto, died from the effects of chloroform as outlined above.*

Instead of placing a piece of gauze or cotton in the inhaler and then pouring on a quantity of the anesthetic, material covering the frame should be used through which air is easily penetrable, and then by following the drop method as outlined by Esmarch I think many dangers of the drug may be obviated. My opinion is that the rapid method of administration is dangerous—that a slower method is safer. By the rapid method you are apt to suddenly overwhelm the system. A man who can slowly drink a pint of

* From Medical Record, July 23.

whiskey without obvious harm, is put in danger of his life if he gulps it down at one time. If this be true of alcohol by the stomach, why should it not be true of an anesthetic by the lungs?

For ether, an inhaler made of canvas or heavy paper folded into a quadrangular shape and lined with some rough material, as part of a bath towel, has proved quite satisfactory in my hands. This is to be preferred to the ordinary cone with a wad of cotton or a small towel pressed into it, to become saturated with ether, not allowing ready evaporation, as in the former case, and using a larger amount of the anesthetic, in some instances asphyxiating the patient before anesthetizing him.

As to the effects of the two anesthetics upon the kidneys, Weir maintains that ether does not irritate them, and reports a large number of cases. Wunderlich, from a statistical study, concluded that albuminuria was more apt to be caused by chloroform than by ether. Beck, from a study of statistics, concluded that albuminuria was more apt to be induced by ether. We are told that statistics cannot lie, yet only one of these statements can be true. My observation has been that while both are irritating to some degree to the normal kidney, chloroform is less so to one diseased than ether.

There is danger in anesthetizing diabetics, as Becker, of Bonn, has published cases in which rapid diabetic coma followed anesthesia, the condition being due to acetonuria. Anesthesia produces acetonuria in most healthy people. The degree of acetonuria bears no relation to the severity of the operation, the duration of the narcosis, or the form of disease. It usually disappears by the fourth day, but may last for eight or nine days. LeNobel's test will bring out the characteristic rose-violet color. (Nitro-prusside of sodium, 5 grains to the ounce, with a few drops of strong liquor ammonia added.)

Briefly mentioning local anesthesia, Schleich's infiltration method is safe, and as a rule satisfactory. Many cases could be operated upon by this method and the dangers of a general anesthetic avoided. Especially is this true in the so-called septic cases, where the patient is suffering from a partial autointoxication, the combination of the anesthetic, shock, and interference with elimination materially lessening the chances for a rapid and safe convalescence. All the dangers of a general anesthetic are not passed when the patient has left the operating room.

The question arises, Which is the safer anesthetic? To answer this many things would have to be considered, and especially the anesthetizer. Personally, if the operation is to be a prolonged one, I usually start with chloroform and change to ether. If to the contrary, I use chloroform—

1. As it is more rapid. (And not using the rapid method of administration.)
2. It is less unpleasant to take.
3. It is less irritating to the respiratory organs.
4. It is less apt to produce nausea and vomiting.

Chloroform is robbed of many of its dangers in competent hands. Ether is much safer than chloroform in incompetent hands. And to sum up, I should say, with Treves, that “anesthetizers are made, not born.”

THE OTHER KIDNEY IN CONTEMPLATED NEPHRECTOMY.—G. M. Edebohls (*Annals of Surg.*, April, 1898) says that the most important resource is incision down to, delivery and examination of, the opposite kidney, previous to completing an otherwise indicated nephrectomy. He proceeds as follows: (1) Patient is placed prone upon the table. The entire width of back is prepared aseptically. (2) An air cushion is placed beneath the abdomen. (3) A straight incision is made from the last rib to the ilium, along the outer border of the erector spinæ muscle. If the space is narrow it may be made more oblique. (4) Carry the incision through muscles and fascia till the perirenal fat is reached. Avoid injuring the ilio-gluteal nerve; if divided it should be sutured at the end of the operation. (5) Cut through the perirenal fat till the kidney is reached, and separate the kidney. (6) To facilitate delivery of the kidney, (a) if it be distended with fluid or pus, aspirate; (b) let an assistant draw the patient down on the table till the air cushion lies beneath the lower half of the thorax; this will cause the kidney to present at the wound. (7) Palpation of the kidney or any other operative procedure necessary. If only a conservative operation is to be done, examination of the other kidney is not necessary. (8) Unless drainage of the interior of the kidney is called for, or the wound surfaces have been soiled by infectious matter, full closure of the wound without drainage should be the rule.

THE MEMPHIS LANCET.

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EDITORIALS.

ANESTHETICS.

General anesthesia is so common nowadays for even the most trifling affections that we are apt to disregard the element of danger always existing. The surgeon is most scrupulous in regard to cleanliness of the hands, instruments, dressings and field of operation; he strives to perfect his skill, and devises new methods to shorten the time of operating, yet, after taking such elaborate precautions to insure the safety of his patient, he frequently vitiates these careful measures by placing the anesthesia in the hands of an inexperienced person, often an undergraduate, ignorant alike of the effects to be produced and of those to be avoided. Even if no untoward accident happens it is safe to presume that the shock is vastly increased by such unskillful administration.

The first important requisite then should be an experienced anesthetist, well versed in the physiological action of the drug he is employing, and careful to avoid the dangers coincident to its use. During the period of unconsciousness his attention should be riveted on the condition of the patient; neither the operation nor anything else in the room should be permitted to distract him for a moment, as in that one moment the vital centers may be overwhelmed, and sudden death ensue.

In regard to the choice of an anesthetic, the only consideration should be the safety of the patient. For this reason we say unhesitatingly that ether should be given, unless there is a distinct contra-indication to its use. It stimulates the vital functions up to the final point of respiratory paralysis, at which time the circulation

thesia lasting several hours. It is an insoluble powder, and is used by insufflation.

Dr. B. F. Turner delivered the *President's Address*. The objects of a medical society are practically two. Membership is a certificate of professional standing, and this leads many to join. The principal aim, however, is to meet for an exchange of experiences and information. The President appealed to the members to attend regularly, and to make at least one contribution each during the year. Especially did he desire the older men to attend and contribute from their larger experience. There is a social side to the medical society which should be cultivated, and the advisability was suggested of an annual dinner as a promoter of the good fellowship which is unfortunately often lacking among physicians. The President, then, to set an example, spoke of a point in connection with the *Anatomy of the Kidney*, which is of practical importance. Whereas the right spermatic vein is short and empties obliquely into the vena cava, the left is long and enters the left renal vein at right angles. The return circulation from the left testis is therefore difficult, and hence one man in three has a left-sided varicocele. When constipation exists, the loaded colon and sigmoid press on this vein and further retard the circulation. A recent case was mentioned in which the patient had severe pain in the testis, which was entirely relieved by emptying a loaded sigmoid flexure.

Dr. B. G. Henning opened the discussion on *La Grippe*. When he came to Memphis, twenty-eight years ago, malaria was prevalent in a very malignant form. This subsided in winter, but since 1889 we have had in winter la grippe, a disease which he dreads more than he ever did malaria. This disease first appeared in the United States in 1647, and since then more than one hundred epidemics have been observed. In 1889 it traveled from Russia to New York in three months. Grippe is an acute, infectious, epidemic, endemic disease, characterized by high temperature, pains in the head and back, and marked prostration. The specific germ was discovered by Pfeiffer in 1892, in the sputum and nasal secretions. It spreads along lines of travel, and with great rapidity. There seem to be two forms: one, influenza vera, occurring in epidemics and due to Pfeiffer's germ; the other, influenza nostras, occurring sporadically, and being a catarrhal fever without a specific (germ) cause.

There is no characteristic pathology, but a catarrhal inflammation of any or all mucous membranes.

There is an individual predisposition. The weak are prone to contract grippe. In asylums, etc., where an equable temperature is maintained, few, if any, cases occur. Relapses and repeated attacks are common. There is a marked antagonism between the germ of influenza and the plasmodium malariae.

The disease usually comes on suddenly with headache, myalgia, prostration and insomnia. It nearly always affects the upper respiratory passages, and may take on a bronchial, gastro-enteric, rheumatic, nephritic, etc., type. It extends over the mucous membrane by continuity.

Complications may arise, such as pneumonia, which, when complicating grippe, is generally a broncho-pneumonia, and has a predilection from the left side. Pleurisy, usually sero-fibrinous, is common. Cardiac depression, without a murmur, pericarditis, and endocarditis often occur. The gastro-enteric complications are often seen, and are sometimes very grave. Emesis, which may run to black vomit and death, loss of peristalsis and tympanites, are symptoms of the gastro-enteric complications. The nervous system always suffers, causing prostration, mental dullness, neuritis, peri-neuritis, multiple neuritis and severe neuralgias.

Otitis media, in a severe form, is a very common complication. The kidneys are sometimes affected with an exudative nephritis, from which they usually recover. Orchitis may occur.

Cerebral or cerebro-spinal meningitis is a grave complication, and not uncommon. Grippe may simulate typhoid fever.

The prognosis, aside from the complications, is good. The death rate is 1 per cent. The present epidemic is severe.

The duration is from two to four days in mild cases, and seven to ten in severe. Complications and relapses may prolong an attack indefinitely. Epidemics last from four to six weeks. Convalescence is slow and marked by prostration.

There is no specific. The salicylates and quinin have little or no influence. Dover's powder, caffein and phenacetin yield the best results. After the temperature subsides, strychnia, in tonic doses, is the best remedy to give. Of first importance during the attack is to keep the patient in a room of an even temperature of 70°.

Dr. N. F. Raines has seen few cases at the Shelby County Poor and Insane Asylum, where the temperature of the buildings is maintained at 70°. He has used calomel and quinin without good effects, and now uses the salicylate of ammonium and Dover's powder.

Dr. S. E. Rice thinks the disease tends to spread by lines of travel.

Dr. F. S. Raymond has seen no cases among the inmates of the county jail. He has not noticed that feeble people are especially likely to contract grippe, nor has he seen any high temperature, 102° being about the highest.

Dr. A. B. Oliver does not think contact is necessary to contagion, but thinks the disease spreads through the air.

Dr. Alfred Moore asked if any of the gentlemen had seen epistaxis during grippe. It is put down as a symptom by Loomis and Thompson.

Dr. Heber Jones thinks grippe is more severe in the North than with us, and does not agree with Dr. Henning in thinking it to be a terrible disease, but, in his experience, a mild one, with exceptions. He has not seen hyperpyrexia often. He has not seen a death from grippe nor any pneumonia, enteritis, or other serious complications, except a temporary weak heart, and a temporary bronchitis. He uses the salicylates, and, for the pains, the coal tar preparations.

Dr. E. E. Haynes has seen one death this year from pneumonia and pleurisy following grippe.

Dr. Marcus Haase has noted chronic bronchitis as the only sequel of grippe which lasts any length of time.

Dr. Moore Moore, Jr., inquired as to the range of temperature in the cases with rapid heart.

Dr. W. C. Griswold wanted to know if grippe differed from the old-fashioned bronchitis.

Dr. E. P. Sale from personal experience thinks grippe is contagious by contact, and one attack makes one more susceptible to another. A person never fully recovers from the influence of the grippe, but retains at least a susceptibility to catarrhal inflammations. In the treatment he places much reliance on the fluid ex-

tract of gelsemium, given in drop doses every hour till the physiological effect is obtained. Quinin is worse than useless. Alcohol is of value only as a stimulant, and this effect is followed by depression. He does not usually see high temperatures.

Dr. J. L. Andrews has recently seen a patient develop grippe on top of an intermittent malarial attack.

Dr. Ellett corroborated what *Dr. Henning* said about the influence of grippe in causing otitis media, and thinks this tendency constitutes a contra-indication to quinin. Otitis media is seen in its most violent forms as a complication of grippe. *Dr. Ellett* spoke of Seiler's name of "It" for this disease, and also that Seiler recommends benzoate of soda in twenty-grain doses as a specific. Some years ago Salisbury, of Cleveland, thought he had discovered the germ of influenza in the nasal secretions, but it turned out that what he saw were isolated ciliated columnar epithelial cells.

Dr. Allison Brown mentioned two cases seen recently in *Dr. Henning's* practice. In one case a pneumonia complicated the grippe with the crisis on the ninth day. Then after two days of normal temperature a gastro-enteritis developed, with uncontrollable vomiting, ending in death with "black vomiting." The second case showed marked cardiac arrhythmia.

Dr. Goltman had found the grippe very severe in Canada, and agreed with *Dr. Henning* as to its gravity. Wood says that in one year the gastro-enteric type of influenza killed more people than bad water.

Dr. Henning said in closing, that it is not the grippe itself, but its complications that make it so grave. To say that a man has grippe today does not mean that he will have it tomorrow. It may by then be pneumonia, pleurisy, bronchitis, pericarditis, endocarditis, gastro-enteritis, rheumatism, meningitis or nephritis. He mentioned the case of a young woman who developed grippe and died the same night of congestion of the lungs. In acute cases presenting great prostration without obvious cause, he usually attributes it to la grippe.

PROGRESS OF MEDICINE.

OLD AND MODERN THEORIES OF INFLAMMATION—ITS NATURE AND PURPOSE.—Hektoen (*Phil. Med. Jour.*, vol. ii, no. 10) succeeds in harmonizing the various philosophies on inflammation. Boerhave made the first attempt to discover the essence of inflammation. He thought it was caused by the arrest of the circulation and the results of the stasis. Magendie, Cruveilhier, Henle and others formulated theories that were aimed at accounting for these. Rokitsansky dwelt on capillary dilatation, slowing of current and exudation of serum. Virchow, in 1854, founded the cellular theory; inflammatory stimulus was the cause, and pus cells were the result of fixed tissue proliferation; vascular changes were secondary. Cohnheim first invoked the aid of the microscope and observed the classic vascular phenomena, and naturally concluded that inflammation was a primary lesion of the vessels. Later, demonstrations of mitosis by Flemming and others showed actual proliferation of fixed cells, regenerative in character.

Inflammation has lost its original symptomatic significance, and the term has come to be applied to complex morbid processes, composed in varying degree of the known changes, and is not an etiologic entity. Some would banish the term entirely, but the generalization of so many processes under the head of inflammation is warranted, chiefly because the essential changes are responsive, protective and salutary.

Definitions include attempts to show a tendency to protection. Thus Adami defines inflammation as the local attempt at repair of local or referred injury. As to pathogenesis, it is shown that various agents, chiefly bacteria, produce, in contact with tissues, more or less necrotic and degenerative, together with active and regenerative, changes. The most evident of the responsive changes are dilatation, hyperemia, leukocytic emigration, plastic exudation, and fixed tissue-cell proliferation. Metschnikoff has demonstrated that not even the simplest organisms submit passively to injury. The migration of cells to the point of injury is the most striking and nearly constant feature of the reactive process, even in the

simplest organisms which have no vessels, showing that this process precedes the vascular events in the evolutionary history of inflammation. Vascular endothelia may, however, actively favor the occurrence of inflammation, and the course of inflammatory reaction is influenced by the nervous system. The attraction of active elements to the point of injury, even in the absence of vessels, is due to chemiotaxis. Researches show that the majority of pathogenic bacteria contain or produce substances having this property. This and phagocytosis have been held by their authors as being each sufficient to base a theory of inflammation upon, which is not warranted. The humoral theory, ascribing the protective mechanism to the serum, has been opposed to Metschnikoff's with the most success, but it has been abundantly shown that leukocytes contain these agents, and that fluids rich in leukocytes furnish the strongest antitoxins. Agglutination (Widal's reaction) is lost by filtering the serum through Müncke's porcelain cylinder, and can be restored by adding a sediment of leukocytes and their granules. Granulation tissue has the same effect on anthrax bacilli. Other experiments show that all this is apart from phagocytosis, as only some leukocytes are phagocytes, the others (oxyphiles) furnishing in their granules the protective material. Leukocytes in proliferating tissue serve as food for the rapidly growing cells, and such tissue is very germicidal.

Inflammation, then, is a combination in varying degree of all the processes and phenomena observed by different investigators. "It is not by cells of one order alone—by phagocytes or by leukocytes, or merely by reaction on part of the fixed tissue cells, or by vascular changes alone, or by altered temperature, or solely by the chemic and mechanical action of the exudate—that repair is effected" (quotation cited by Adami). But the reaction is not always in proportion to the strength of the irritant. The leukocytes may incorporate bacteria but not destroy them. The fixed tissue proliferation may be excessive or imperfect; the resulting cicatrices may lead to serious consequences. Hence, inflammation is adaptive and self-preservative, yet often harmful and wayward, requiring man's intervention. Clinically, it is harmful; biologically, a struggle for self-preservation, an imperfect pathologic adaptation, often leading to consequences that are dangerous *per se*, and may defeat its purpose.

HABITUAL CONSTIPATION IN INFANCY.—Thomas S. Southworth (*Archives of Pediatrics*, June, 1898) thinks the importance of the sigmoid flexure is overestimated. He considers chronic constipation in the infant due to deficient muscular power of the intestinal coats, to sluggish peristalsis, disturbed secretion conditions, lack of voluntary efforts, and altered consistency of the fecal masses. Not only the size and number of stools should be considered, but they should be carefully broken up for inspection, and be subjected to a chemical and microscopical analysis. The constipation of nursing babies is a more difficult problem than that of those artificially fed, as we cannot alter the character of the food so readily. However, we have some means of correction in nursing babies. An abundance of fluid food, as milk, cocoa, thin gruels, etc., will increase mammary secretions, while the percentage of fat may be raised by giving eggs, meats, broths and extracts of malt. Toward the end of lactation, with failing milk supply and total solids reduced, tonics and a liberal diet may serve to reestablish normal secretion.

If the constipation is coincident with stationary weight, supplementary feedings are indicated, the clue to this condition being a hard, scybalous stool, thoroughly digested. If this condition of stool is present, with a slight increase in weight, one or two drams of cream should be given before each nursing. In bottle-fed babies the most usual errors in diet are insufficient fat and insufficient or excessive proteid. In the last, constipation results from the casein forming hard, friable masses, and in the two former it results from the slight amount of residue. To relieve these conditions the milk should be properly diluted, and cream and sugar added to bring the fats, sugars and proteids to the proper proportions. If this fails to correct the constipation, we may give small quantities of oatmeal water, non-alcoholic extracts of malt, beef juice, or juice of half an orange. After the first year the pulp of baked apples or stewed prunes may be cautiously tried.

Two especial forms of constipation remain to be mentioned—rachitic and that due to hepatic torpor. For rachitic, in addition to remedies suggested above, codliver oil and other anti-rachitics must be given. When the liver is torpid it must be stimulated by appropriate treatment. The infant should be trained to regular evacuation of the bowels. Massage of the abdomen is useful in those whose stools are good but expulsive force deficient. In some

cases it may be necessary to thoroughly cleanse the intestinal tract before we can obtain an effect from regulating the diet. For this, small doses of calomel, fluid extract of cascara, or rhubarb and soda, may be used. Enemata are sometimes desirable; saline solutions are preferable to plain water, and glycerin in the water is still better. Glycerin may also be used by suppository.

THE USE OF RUBBER GLOVES IN OPERATIVE SURGERY.—Dr. Chas. McBurney (*Annals of Surgery*, July 18, 1898) discusses the use of rubber gloves by the operating surgeon. In his opinion the use of respirators, covers for hair and beard, special foot spigots, orange wood nail cleaners, douching clean wounds with antiseptic solutions, the use of iodoform on clean wounds, etc., are unnecessary, provided the hands, instruments, sponges and towels, etc., which come in contact with the wound, are clean. Neither do floors, walls or spectators cause infection of the wound, except by contact. All implements used in operating are easily, and usually are, rendered sterile by heat, hence it must be the surgeon's or assistant's hands which are at fault; and to overcome the well-known difficulty of rendering the hands sterile he advocates the use of rubber gloves, which can easily be sterilized by heat. To use his own words, "During the period referred to, of about five months (since he and all assistants have worn gloves), the only instances of even slight wound infection were the following: In each of three cases, one in private and two in the hospital, a single drop of pus was found at one suture puncture at the second change of dressings. This was wiped away, and at the third dressing no sign of the incident remained. In the fourth case, a child, from whom I had removed a small tuberculous gland in the neck, a small quantity of clear serum escaped on the fifth day. A few days later this was slightly turbid, and I then discovered, just inside the opening, a bit of rubber tissue used for drainage. In a fifth case, a very debilitated elderly patient, for whom I did a laparotomy and intestinal anastomosis, and who had an actively discharging artificial anus at the time, a distinct cold mural abscess without rise of temperature developed on the tenth day. This was the only case which required even partial separation of the skin wound. When I say that no infection occurred, I mean that no reddened wound edges, no edematous tissue, no delayed union or unhealthy discharge, with the

exceptions referred to above, occurred in a single instance. In a number of cases already infected, such as suppurating and discharging glands of the neck, requiring the use of both knife and curette, the wounds have been completely sutured and closed like originally clean operations. All of these wounds have healed primarily, and in no one of them has any part of the suture line given way or any discharge occurred. Even actively suppurating spaces, such as occur about a diseased appendix, have seemed to me to invariably heal, although of course by granulation, in a more perfect manner than usual. Of course the observations of men in regard to what constitutes wound infection may be different according to the standard of measurement. I have made use of the highest clinical standard that I know of, and I can truthfully say that I have never before seen such uniformly perfect wound healing of such a high grade." One is of course a little awkward in manipulations and in handling instruments, but with some practice this difficulty is easily overcome.

THE IMMEDIATE AND REMOTE RESULTS OF SEVENTY-ONE ALEXANDER AND SEVENTY-ONE SUSPENSIO-UTERI OPERATIONS.—W. L. Burrage (*Med. News*, Oct. 8, 1898) thus concludes a paper on the foregoing subject:

1. The Alexander operation is preferable to the suspensio-uteri operation because it seeks to support the uterus by its natural ligaments.

2. The Alexander operation is indicated in retroversion, retroflexion, and retro-position without ovarian disease.

3. In retro-position, with tight utero-sacral ligaments, posterior colpotomy for the purpose of dividing the tight ligaments may be performed with advantage, together with the Alexander operation.

4. In ovarian prolapse, especially if the ovarian ligaments are long, the Alexander operation cannot be depended on to raise the ovaries into a normal position.

5. One round ligament is not sufficient to maintain the uterus in place.

6. Edebohl's operation, although requiring a longer time for its performance than the operation at the external ring, is the preferable operation, because by it the round ligament, being uncovered in the entire length of the inguinal canal, is less liable to be broken;

also, because this method does away with the need of anteverting the uterus bimanually in the course of the operation; and finally, because of the secure manner in which the ligament is anchored and the inguinal canal closed, making subsequent hernia impossible.

7. Although the Alexander operation leaves two scars on the abdomen, they are so situated as to be covered by the pubic hair, and are subsequently less of a disfigurement than is one scar in the median line.

8. The suspensio-uteri operation is indicated in retroversion, retroflexion, and retro-position, with ovarian or tubal disease, whether inflammatory affections or prolapse.

9. The best method of performing the suspension is by means of absorbable ligatures passed through the anterior and upper portions of the fundus uteri and through the parietal peritoneum and transversalis fascia only. Thus an elastic band is created between the parietes and the uterus, which maintains the uterus in place and does not cause interference with the enlargement of the anterior fundus during subsequent pregnancy.

10. Suspensio-uteri leaves but one weak spot in the abdominal parietes predisposing to hernia, instead of two, as in the Alexander operation.

11. In the great majority of cases, neither operation is the cause of complications in subsequent pregnancy. Whatever complications do occur are not of a serious nature.

12. In all cases of doubtful diagnosis in which the condition of the ovaries and tubes cannot be determined accurately, the suspensio-uteri operation is to be preferred to the Alexander operation.

THE CAUSE OF THE CONFLICTING STATEMENTS CONCERNING THE BACTERIAL CONTENTS OF THE VAGINAL SECRETION OF THE PREGNANT WOMAN.—J. Whitridge Williams (*Amer. Jour. of Obstet.*, Dec., 1898) summarizes the practical results obtained from the observation of twenty-five cases as follows:

1. This work tends to reconcile the conflicting results of the various observers by showing that they are due to difference in the technique by which the secretion was obtained for examination, and not to gross errors in bacteriological work. Those who obtained the secretion by means of a speculum carried bacteria from the vulva up with it, and necessarily got positive results; while

those who obtained their secretion by means of a small tube avoided so doing, and obtained negative results.

2. This series of cases serves to confirm the previous work of Kronig and myself, which conclusively shows that the various pyogenic bacteria which give rise to puerperal infection are not found in the vaginal secretion of pregnant women.

3. This being the case, auto-infection with these organisms cannot occur, and when they are found in the puerperal uterus they have been introduced from without. Accordingly, prophylactic vaginal douches are not necessary, and are probably harmful, laboratory work thus standing in direct accord with the practical experience of most clinicians.

4. The work clearly demonstrates the danger of vaginal examinations, as I have shown that the introduction of a small cylindrical speculum, which is certainly no larger than two fingers, carries up into the vagina, in 50 per cent. of the cases, whatever pathogenic organisms may be present at the vaginal entrance. In view of the extreme sensibility of the vulva and the manifest impossibility of disinfecting it with anything like the certainty with which we can disinfect our hands, it becomes apparent that the introduction of a perfectly sterile finger into the vagina is not always a harmless procedure.

5. The danger of the vaginal examination being thus demonstrated, it is apparent that it must give place more and more to the external examination of the pregnant and parturient woman.

THE DISPOSAL OF GARBAGE.—Dr. M. L. Davis, of Lancaster, presented to the Associated Health Authorities of Pennsylvania (*Journal of the American Medical Association*, July 22, 1898) an excellent paper on this subject. By the word garbage he means kitchen waste, such as fruit rinds and bits of food, and the refuse of market stalls (meat, fish, fruit and vegetables). The average daily amount of this material produced in American cities is $1\frac{1}{2}$ tons to each 1000 inhabitants. To dispose of it as Philadelphia did, by dumping it in a harbor or river, may obstruct the harbor for navigation, and eventually necessitate, as in Philadelphia's case, the expenditure of millions of dollars to remove it. Inland cities, by dumping it in some sort of "sink hole," pollute the atmosphere with the fumes and the water supply through the soil. Two meth-

ods may be considered adequate and modern—the utilization method and the cremation process. The utilization method is to receive the garbage in a pit, separate tin cans and other solid material from it, convey the garbage proper by hoppers traveling on an endless chain to digesters, where it is treated by a cooking process by steam alone, or by steam and naphtha, to extract the grease, pressing out the liquid, drying of the solid portion and grinding for fertilization, and distilling the naphtha to reclaim the grease. The odors arising from this process can be conducted by pipes through intense heat, which decomposes them, and the plant kept clean and odorless. Pittsburg does all this at a cost of \$80,000 a year, not counting collection. From 400 tons of garbage \$500 worth of grease may be obtained, and of 100 tons of garbage that goes to the digester 20 tons is recovered as fertilizer.

The burning method is accomplished by two plans, one of which utilizes the carbon in the garbage, the other does not. The furnaces are horizontal, and garbage is dumped on a grate and consumed by a fire beneath. A second fire in or near the stack destroys the odors. This method costs \$3.65 a day, consuming in that time 40 tons of garbage. The utilization method costs \$52.80 for the same work, but yields some return.

FRACTURE OF THE LOWER EXTREMITIES.—Warbasse (*Annals of Surgery*, May, 1898) reports observations on the treatment of fractures of the lower extremity during two years, in the Methodist Episcopal Hospital of Brooklyn. These fractures include 111 of the femur, 34 of the patella, 19 of the bones of the foot, and 286 of the bones of the leg. Of the 111 cases of fracture of the femur, 81 were discharged cured, 7 improving and 2 with soft unions; and of 70 cases of complete fracture of the shaft or neck, in which the exact measurements were kept, there was no shortening in 36 cases, less than one-fourth of an inch in 20 cases, from one-fourth to one-half of an inch in 8 cases, from one-half to three-fourths inch in 3 cases, from three-fourths to one inch in 2 cases, and two-inch shortening in 1 case. Both femora were broken in 3 cases, and there were 2 cases of separation of the lower epiphysis. In the majority of cases the treatment applied was the traction apparatus of Buck. In 20 of the cases of fracture of the patella, in which the joint was opened by incision over the patella,

solid bony union was secured in all, the bone being united by silver wire sutures in 12 cases, by silkworm gut in 5, by kangaroo tendon in 1, and by chromicized gut in 1 case. In 3 cases where the patella was encircled by a subcutaneous suture, good fibrous union was secured. In 27 operations in which the knee joint was opened and the bone fragment sutured, there was no septic joint disturbance. Primary healing occurred in all cases and it was demonstrated in all of the recent transverse fractures that bony approximation would have been absolutely impossible without operation because of the intervention of blood clot and torn periosteum. During the latter part of the decade drainage was used less than in the early part and the cases did equally well without it. Lately a method of uniting the bones by chromicized sutures passed through the bone, suturing over these the periosteum with interrupted chromicized gut sutures, then closing the joint capsule by a continuous suture of fine gut, suturing the subcutaneous fascia in the same manner and finally closing the skin with a suture of silk, gave great satisfaction. Of the 286 cases of fracture of the tibia and fibula, 136 were of the shafts of both bones of unspecified location, 28 of the shaft of the tibia, and 21 of the shaft of the fibula of unspecified location, 8 of the upper thirds of both bones, 15 of the middle and 26 of the lower thirds, 4 of the upper third of the tibia, 1 of the middle and 13 of the lower thirds, 3 of the upper third of the fibula, 1 of the middle and 30 of the lower thirds. Of these, 180 were simple fractures, 90 compound fractures, of which number 56 were compound comminuted and 5 simple comminuted. In the 19 cases of fracture of the bones of the foot, 10 were fractures of the tarsal, 5 of the metatarsal, and 4 of the phalanges.—*Jour. Amer. Med. Assn.*

OPERATIVE TREATMENT OF IRREDUCIBLE SUBCUTANEOUS FRACTURES.—Ransohoff (*Boston Med. & Surg. Jour.*, June 23, 1898) believes that in certain cases an interference before union had resulted would be preferable to the certainty of deformity, and reports seven cases which have come under his observation in which the fracture was exposed and directly treated. The author states that his experience or what he has gleaned from literature does not warrant him in coming to conclusions that are final. Nevertheless, he believes that it would be justifiable to submit in a tentative

way the following postulates: (1) The conversion of a simple fracture is justifiable when other means to secure the best results fail. (2) In fractures of the diaphysis of the tibia, femur, humerus, in which unsurmountable longitudinal displacement or axial rotation has taken place, immediate operation or mediate operation before definite union has occurred is indicated. (3) In epiphyseal separations, when reduction cannot otherwise be affected, an early operation is justified. (4) Fractures complicated with dislocations irreducible by other methods warrant operative interference. (5) The involvement of a joint, except probably in the case of knee and hip, does not, *per se*, militate against operation if this is otherwise indicated. (6) If extensive comminution is present, as in compression or crushed fracture, operation is contraindicated. (7) Special precaution against infection must be taken, in connection with which should be borne in mind the dangers of too firmly closing a wound and the advantage of temporary tamponade and secondary suture. (8) Reckless and indiscriminate resort to the operative relief of deformity in recent simple fractures is to be condemned, since there would be few fields of surgery, in the event of an unsuccessful intervention, in which the contrast could be greater between the good intended and the harm done.

THE QUESTION OF OPERATIVE INTERFERENCE IN RECENT SIMPLE FRACTURES OF THE PATELLA.—Chas A. Powers, at the meeting of the American Surgical Association in New Orleans, April 19, 20 and 21, 1898, enumerated the conditions tending to cause imperfect union and the obstacles to union as follows: (1) Separation of the fragments are due to (*a*) retraction of the upper fragment from contraction of the quadriceps femoris and a slight drawing down of the lower fragment through a shortening of the ligamentum patellæ; (*b*) effused blood. (2) Tilting of the fragments; this may be present to a marked degree and unrecognizable without operation. (3) Rupture of the tendinous expansion of the vasti and the lateral portions of the capsule of the joint. (4) Prolapse of the prepatellar tissues into the breach. (5) Atrophy of the quadriceps femoris due to (*a*) disuse, (*b*) arthritis, (*c*) marked contusion of the muscle, (*d*) blood extravasated from the joint through a rent in the upper part of the capsule. (6) Arthritis of the knee joint, this probably resulting in (7) adhesion of the patella. Further, though

of little value, may be added (8) natural poverty of the blood supplied to the bone (rendered negative by the fact that the vertical fractures heal satisfactorily), and (9) exceptional tendency to osteitis, seen in fat people, in the aged, and in certain conditions of the blood.—*New Orleans Med. & Surg. Jour.*, May, 1898.

THE EARLY RECOGNITION OF GENERAL PARESIS (PROGRESSIVE DEMENTIA). — B. Sachs (*New York Medical Journal*, July 2 and 9, 1898) says that general paresis or, better still, parietic dementia is a convenient designation for the clinical manifestations of a number of different morbid processes affecting the brain, and leading ultimately to an atrophy and destruction of cerebral (chiefly cortical) elements. The classical type of parietic dementia represents the severest of these diseases, and is fatal in fully 95 per cent. of the cases; but it is well to bear in mind that there are other forms of disease closely resembling the main type, which can scarcely be differentiated from it, and yet seems at times to yield a more favorable prognosis.

It is for this reason and from actual observation that I would urge a careful consideration of the earlier stages of every form of parietic dementia, and would insist that the possibility of prolonged remissions or a complete recovery be kept in mind.

It may be conceded that the disease has undergone some changes, but in all probability some of these are due to the fact that other forms of disease are becoming more frequent, or that we recognize them more readily than we once did.

The greater duration of life after the disease has been recognized may be due to the better care which the patient receives, but possibly also to the earlier recognition of the first symptoms. Among these symptoms the evidences of mental derangement are of first importance, for on the strength of the physical symptoms alone a diagnosis is not warranted. But with the appearance of any evidence of the characteristic mental derangement the importance of the physical symptoms cannot be over-estimated, and among these early signs the facial tremor, the stammering, tremulous speech, and the abnormities in pupillary reflexes should be studied carefully with reference to the evidence that they supply of a distinct and active alcoholic or specific poison.

Finally, I would venture the statement that the symptoms com-

monly interpreted as those of a progressive dementia do not necessarily indicate the presence of a fatal disease, whence it follows that in every instance the patient should be given the benefit of proper treatment. Absolute mental rest, total abstinence, separation from an irritating environment, mild sedatives, and, in some instances, a rigorous anti-syphilitic regimen will be of distinct value.

OBSERVATIONS UPON THE TREATMENT OF ENTERIC FEVER BY SYSTEMATIC COLD BATHING.—J. C. Wilson (*Phila. Med. Jour.*, vol. ii, no. 2) gives the statistics from the German Hospital, Philadelphia, from February 1, 1890, to January 1, 1898, showing a total of 741 cases, with 55 deaths; mortality 7.42%. Of the 17 deaths in the last two series, numbering 217 cases, 8 were caused by intense infection (one might add by lateness of admission), 5 by hemorrhage, 2 by perforation, and 1 by cardiac asthenia. The Brand method was modified by an early calomel purge, followed, if necessary, by a mild saline. No such treatment was attempted after the tenth day of the attack. Cold compresses or icebags were applied to the abdomen for tenderness, marked spontaneous pain and hemorrhage. For tympanites, turpentine stupes were also used at intervals. Medicine was only used to meet special indications, which was in only 10 per cent. of the cases. The temperature which called for baths was a 101.4° F. in the axilla. If possible, the patients were allowed to walk, assisted, to the bath. Especial attention is called to the advantage of this over the log-like inactivity usually insisted upon. Somnolence, visceral congestion, gastrointestinal catarrh, intestinal paresis to which tympanites is due, muscular atrophy and diminished lymph circulation, are all favorably influenced by some exertion. Contraindications are carefully noted.

There is nothing specific, says the author, in the individual bath. It is the rhythmic repetition of the stimulation of physiologic processes produced by a succession of baths commenced early in the course of the attack to which the favorable results are to be attributed. If these cases could be attended earlier in the attack the results would doubtless be even better. The few mild cases seen do not justify the assertion that typhoid fever is aborted.

THERAPEUTIC NOTES.

PILL FOR NEURALGIA:

R Quininae sulph., 3i
 Morphinae sulph.,
 Acid arseniosi, aa gr. iss
 Ext. aconiti, gr. xv
 Strych. sulph., gr. i
 M. et ft. pil. No. xxx. Sig.: One
 three times a day. *S. D. Gross.*

FETID BREATH:

R Sodii biborat., gr. xv
 Thymoli, gr. viiss
 Aq. dest., f 3 lxxv
 M. Sig.: Mouth wash. *Magitol.*

ENLARGED LYMPHATIC GLANDS:

R Ichthyol,
 Ung. hydrarg.,
 Ung. belladon., aa 3i
 Ung. petrolati, 3 ss
 M. Ft. ung. Sig.: Apply night and
 morning, with friction.

CORNS:

R Acid salicyl., gr. xxx
 Ext. cannab. ind., fl. gr. x
 Collodii, f 3 ss
 M. Sig.: Apply with a brush night
 and morning. *Stelwagon.*

ACNE:

R Bismuthi subnitrat.,
 Hydrarg. ammoniat.,
 Ichthyolis, aa gr. xlviii
 Vaseline, 3i
 M. Sig.: Apply night and morning.

SCIATICA:

R Tr. aconiti,
 Tr. colchic. sem.,
 Tr. belladon.,
 Tr. actia racem., aa p. e.
 M. Sig.: Six drops every six hours.
Metcalf.

URIC ACID DIATHESIS:

R Liq. potass. arsenitis, m. v
 Potass. bicarb.,
 Ferri et potass. tart., aa gr. v
 Infus. quassiae, f 3i
 M. Sig.: Take three times daily, two
 hours after meals. *Fothergill.*

ECZEMA OF VAGINA:

R Ichthyol ammon., 1 1/2-2 parts
 Amyli tritici,
 Zinci flor., aa 12 parts
 Vaseline, 25 parts
 M. et ft. paste.

CHRONIC OTORRHOEA:

R Picric acid, .2
 Alcohol, 90 per cent., 3.2
 Aq. dest., 20.2
 M. Sig.: Use morning and evening.
 The yellow stain can be removed
 by a solution of carbonate of lithia.
LaCroix.

CHANCROID:

R Acid sulphuric,
 Pulv. carbo. lig., aa 3 ss
 M. Ft. magma. Sig.: Apply to dry
 sore and use no dressing. *Ricord.*

INSECT BITES:

R Pulv. ipecac, 3 ss
 Spt. vini rect.,
 Ether sulph., aa f 3 ss
 M. Sig.: Apply to bite.

SIMPLE COUGH:

R Tr. benzoin co.,
 Fl. ext. euphorbia pilulif., aa f 3 ss
 Tr. capsici, f 3 iij
 Syr. senegae, f 3 i
 Syr. ac. hydriod., q.s. ad., f 3 iv
 M. Sig.: One teaspoonful in water
 every three or four hours.
Thos. J. Mays.

BOOK REVIEWS.

Any medical book can be obtained through the Lancet at publisher's prices, postage free. Terms cash. The usual discounts are allowed.

Annual and Analytical Cyclopedia of Practical Medicine. By Chas. E. M. Sajous, M.D., and one hundred associate editors, assisted by corresponding editors, collaborators and correspondents. Illustrated with chromo-lithographs, engravings and maps. Vol. I: Abdominal Injuries—Bright's Disease. Vol. II: Bromide of Ethyl—Diphtheria. Philadelphia: The F. A. Davis Co., 1898.

This work is the successor to "Sajous' Annual," and a careful study has been made of the shortcomings of that publication, and the present work improved accordingly. The plan of the work is to take up each subject alphabetically, review it in full as to cause, course, pathology and treatment, regardless of whether it has been studied recently or not. Then extracts from recent contributions are given, these being put in smaller type. It will be seen at once what a great improvement this is over the plan followed by the old "Annual," in that it gives the present status of every subject, no matter if no contribution has been made to it for many years. To those situated, as most of the LANCET's readers are, remote from large medical libraries, the value of this work is especially great; it will, in fact, do away with the necessity of acquiring many textbooks. Not the least of the beauties of the work is the typography. The print is large, clear, and extremely easy to read, while the exterior is decidedly ornamental. The work is profusely and beautifully illustrated. We hope the cyclopedia will be as popular as it undoubtedly deserves, and that it will become a fixture in our medical literature.

Saunders' Pocket Medical Formulary. By Wm. M. Powell, M.D., Author of "Essentials of Diseases of Children," etc. Fifth edition, thoroughly revised. Philadelphia: W. B. Saunders. Price, \$1.75.

This little volume contains 220 pages of selected formulæ, alphabetically arranged, with blank pages for additional ones. It is intended simply as a reference book, and of course cannot supply the place of a knowledge of therapeutics; nor does the author sit in judgement on the value of the different formulæ. We hardly think he would advise atropia in conjunctivitis (R No. 259), or a powder containing cocain for a patient to use for coryza. Pathologically, we do not see why otitis and otorrhea should be coupled, and the same formulæ put down for both. Among these few things to be criticised are many to be commended. Following the formulæ are a dose table, a list of incompatibles, a table of weights and measures, with their metric equivalents, a table of information concerning the eruptive fevers, methods of artificial respiration, a surgical remembrancer (excellent), a table of antidotes, measurements and diagrams of the female pelvis and fetal skull, an obstetrical calendar, a diet list, and formulæ for solutions, etc., used in antiseptic surgery. The volume is small enough to go in the pocket, bound in flexible leather, and contains more good medical information than we remember to have seen in so small a space.

BOOKS AND PAMPHLETS RECEIVED.

The Phonendoscope and Its Practical Application. Translation of Lectures Delivered by Aurelio Bianchi, M.D., Parma, Professor of Preparatory Clinical Medicine and Pathology. With 37 illustrations. With translations of Special Articles by Felix Regnault, M.D., of France, and M. Anastasiades, M.D., of Greece. Translated by A. George Baker, A.M., M.D., Physician-in-Charge of the Chinese Medical Dispensary, Philadelphia, and Author of the Prize Essays entitled, "The Revival of Learning," "The Germans in America," etc. Philadelphia, U.S.A.: Geo. P. Pilling & Son, 1898.

A Textbook of Obstetrics. By Barton Cooke Hirst, M.D., Professor of Obstetrics in the University of Pennsylvania. 846 pages, with 653 illustrations. Philadelphia: W. B. Saunders. Price, \$5 net.

The Sexual Instinct, its Use and Dangers as Affecting Heredity and Morals. By Jas. Foster Scott, A.B., M.D., C.M., late Obstetrician to Columbia Hospital for Women, and Lying-In Asylum, Washington, D. C.; late Vice-President of the Medical Association of the District of Columbia, etc. New York: E. B. Treat & Co.

A Textbook of Mechano-Therapy, Massage and Medical Gymnastics. By Axel V. Grafstrom, B.Sc., M.D., with 11 pen and ink sketches. W. B. Saunders, Philadelphia, Pa.

Saunders' Pocket Medical Formulary, with Appendix. By Wm. M. Powell, M.D. W. B. Saunders, Philadelphia.

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The Relationship Between the Genito-Urinary Tract and Rectum. By John L. Jelks, M.D., of Memphis, Tenn.

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Some Sources of Failure in Treating Lachrymal Obstructions. By Leartus Connor, A.M., M.D., of Detroit, Mich. (Reprinted from the *Journal of the American Medical Association*, October 8, 1898.)

Do Gross Pathologic Changes Occur in the Eye After Injuries to the Spinal Cord? By Dunbar Roy, A.B., M.D., of Philadelphia. (Reprinted from the *Philadelphia Medical Journal*, November 12, 1898.)

Partial or Complete Loss of Vision from Causes Other Than Injuries. By Dunbar Roy, A.B., M.D., of Philadelphia. (Reprinted from the *International Journal of Surgery*, February, 1898.)

Pseudarthrosis of the Tibia, Union with the Parkhill Clamp. By Clayton Parkhill, M.D., of Denver, Col. (Clinical lecture delivered at St. Luke's Hospital, September 28, 1897.)

Further Observations Regarding the Use of the Bone Clamp in Ununited Fractures, Fractures with a Tendency to Displacement. By Clayton Parkhill, M.D., of Denver, Col. (Reprinted from *Annals of Surgery*.)

Electrolysis as a Treatment for Deviations, Spurs and Ridges of the Nasal Septum. By Wm. L. Ballenger, M.D., of Chicago. (Reprinted from the *Journal of the American Medical Association*, Jan. 11, 1896.)

Diseases of the Ear as a Specialty. By Emil Amberg, M.D., Detroit, Mich. (Reprinted from *Physician and Surgeon*, Detroit.)

Entotical Sound Perceptions. By Lewis S. Somers, M.D. (Reprinted from *Medicine*, December, 1898.)

Pathology and Diagnosis of Diphtheria. By Chas. W. Aitkin, M.D. (Reprinted from the *American Practitioner and News*, August 15, 1898.)

Diagnostic and Therapeutic Uses of Tuberculin. By Chas. W. Aitkin, M.D., of Flemingsburg, Ky. (Reprinted from the *American Practitioner and News*.)

Chronic Suppurative Otitis Media—The Indications for Treatment. By Wm. L. Ballenger, M.D., of Chicago. (Reprinted from the *Laryngoscope*, October, 1898.)

The Radical Cure of Inguinal Hernia by Fowler's Method, with Report of Cases. By H. O. Walker, M.D., Detroit, Mich. (Reprinted from the *Leucocyte*, vol. vi, nos. 1 and 2.)

Osteomyelitis: A Study of Sixteen Cases, Including Eight Amputations and Five Necrotomies. By M. Goltman, M.D., Memphis, Tenn. (Reprinted from *Medicine*, December, 1898.)

The Early Diagnosis of Cancer of the Stomach. By Charles D. Aaron, M.D., Detroit, Mich. (Reprinted from *Journal of the American Medical Association*, March 20, 1897.)

Caries of the Teeth and Diseases of the Stomach. By Charles D. Aaron, M.D., of Detroit, Mich. (Reprinted from *Charlotte Medical Journal*, October, 1898.)

Diarrhœa and Bacteria. By Chas. D. Aaron, M.D., of Detroit, Mich. (Reprinted from *New York Medical Journal*, May 8, 1897.)

Mechanical and Surgical Treatment of Fractures of the Neck of the Femur. By Arthur J. Gillette, M.D., of St. Paul, Minn. (Reprinted from *Northwestern Lancet*, August 15, 1898.)

THE ABUSE OF THE ELECTRIC CAUTERY IN THE NOSE.—H. Holbrook Curtis (*Laryngoscope*, January, 1899) thinks the use of the electro-cautery is unsurgical and unscientific and admits in its employment the possibility of unfortunate results. When used on the nasal septum the cautery so changes the nature of the cartilage cells as to bring about the production of an unhealthy cicatrix, which tends to break down and produce a perforation. There is also danger of forming adhesions. On the turbinals, the cautery may produce too great contraction and consequent dryness. It should never be used on the nasal septum, and in the author's opinion, not at all in the nose except for breaking down webs of adventitious tissue at the inner border of the vestibule.

NEWS AND NOTES.

PROF. BEHRING has applied for a German patent for a tuberculosis serum.

THE Association of Southern Medical Colleges has adopted the four-year course.

DR. CASEY A. WOOD, of Chicago, has resigned the editorship of the *Annals of Ophthalmology*.

DR. E. E. HAYNES has been appointed Gynecologist to the Shelby County Poor and Insane Asylum.

DR. M. GOLTMAN, of the LANCET, was confined to his bed for a week in January with a carbuncle.

DR. JNO. GUITERAS has resigned the chair of Pathology in the University of Pennsylvania and will move to Havana.

THE *Philadelphia Medical Journal* will shortly begin the issue of a sixty-page monthly supplement containing original articles only, at \$1 a year.

Practical Medicine, under the editorial charge of Dr. H. A. Hare, will make its appearance on March 1st. Lea Bros. & Co. are the publishers.

DR. T. R. MOSS, of Dyersburg, Tenn., died the latter part of January of pneumonia. Dr. Moss was 41 years old, and left a wife and little daughter.

GRIPPE is again pandemic, and in the most severe form yet seen. It started in Asia Minor and Turkey in November, and appeared in Memphis about January 1st. The German Emperor is among its victims.

THE students at the A. and M. College of Mississippi (Starkville) were sent to their homes on account of an epidemic of meningitis in the school. The outbreak proved to be mild, and they have been recalled.

THE following committees for the Memphis Medical Society are announced for 1899: Credentials—Drs. Heber Jones, F. D. Smythe, E. C. Ellett. Board of Censors—Drs. F. S. Raymond, G. G. Buford and F. A. Jones.

At a meeting of the Western Ophthalmologic and Oto-Laryngologic Association, to be held in New Orleans February 10 and 11, the address on Ophthalmology will be delivered by Dr. Geo. T. Stevens, of New York, and that on Laryngology by Dr. Chas. E. M. Sajous, of Philadelphia.

THE Board of Managers of the Lucy Brinkley Hospital have elected the following staff for 1899 :

Surgeon-in-charge—Dr. R. B. Maury.

Assistant Surgeons—Dr. Jno. M. Maury.

Dr. E. E. Haynes.

Oculist and Aurist—Dr. E. C. Ellett.

At the meeting of the American Medical Association at Columbus in June special addresses on Ophthalmology will be delivered by Dr. Edmund Landolt, of Paris, Dr. Chas. A. Oliver, of Philadelphia, and Dr. C. S. Bull, of New York. The meetings of the Eye and Ear sections will be held in the same building, a more satisfactory arrangement than that which prevailed at Denver last year.

At the meeting of the Memphis Medical Society, held on January 17th, a resolution was introduced to petition the City Council to allow physicians' conveyances the right of way over other vehicles on the streets of the city. Another resolution was introduced to secure the coöperation of the Cotton and Merchants Exchanges with the Medical Societies in the effort to have the City Council renumber the houses on the decimal system, and to rename certain streets.

DR. N. F. RAINES has been reëlected physician to the Shelby County Poor and Insane Asylum. His administration has been marked by many improvements in both the domestic and medical conduct of the institution, not the least of which was the appointment of a medical staff, through whose efforts many of the inmates have been so restored to usefulness as to cease to be a burden on the county. Congratulations are no less due the county court on the wisdom of their choice than to Dr. Raines on his reëlection. As a further token of the appreciation of Dr. Raines' efficiency, the visiting physicians to the Shelby County Poor and Insane Asylum presented him on January 7th with an emblematic ring of the Scottish Rite Masons, and on the same occasion his assistants at the institution presented him with a silver service.

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CLINICAL NOTES.

ACTION OF TONGALINE ON THE EMUNCTORIES.—No matter how well provided a city may be with sewers and drainage, such will never successfully accomplish their purpose unless kept clear by flushing or other proper methods. So it is with the body. In the physical makeup of man the emunctories are the sewers which are constantly becoming clogged up by certain conditions. The retained detritus is bound to have a harmful effect upon the organism at large, and the physician is confronted with the problem of eliminating this poisonous material promptly and thoroughly. From its well-known activity on the emunctories Tongaline will fully accomplish the purpose, and the remarkably satisfactory results which have followed its use in such cases have been demonstrated by the clinical experience of physicians.

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ORIGINAL ARTICLES.

THE OPIUM CURSE, AND A PREVENTIVE.

BY T. J. HAPPEL, A.M., M.D.

TRENTON, TENN.

In a paper written a few years ago, entitled "Morphinism in its Relation to the Sexual Functions and Appetite, and its Effects on the Offspring of the Users of the Drug," I gave a detailed account of eight families where the mother was addicted to the use of morphin. Since that paper was completed and read, I have had occasion to note the effect of the drug in a few other families, and the results there have served to confirm the views set forth in that paper, viz.: that the children of mothers who are habitual users of the drug, in the majority of cases die within a week of their birth, cyanosed, from an incomplete development of the heart; second, that if they survive the first year they are puny, delicate, nervous children, lacking in everything going to make up a well-equipped boy or girl, mentally and physically; third, should any of the offspring of such mothers attain to adult life, they become either morphin habitues or drunkards. That the effect upon the mother is such as to transmit to her offspring the disease as a heredity, just as is tuberculosis—not that the disease itself is transmitted, but that "a condition, a soil, a nidus, or whatever you may please to call it, is handed down to the child, and some fortuitous circumstance develops the disease."

If this is a true picture, and I am constrained to believe that it is, a great responsibility rests upon some one to proclaim the evil everywhere, and to enforce every possible means of preventing it. The most important branch of medicine today is that of prophylaxis. Disease is easier to prevent than to cure. To cure this curse the using of the drug must be prevented. Once in its toils, to abandon the use of it is one of the greatest undertakings. It has been truly and aptly said that to abandon its use is to suffer the tortures of the damned. Further, without the full and free consent of the patient and his or her hearty coöperation, to "break the morphin habit" is well nigh impossible. I would say nothing to discourage any one, but my observation teaches me that it is far easier to abandon alcohol than opium.

The using of opium is increasing daily. Public sentiment cries out more loudly today than ever before against the use of alcoholic drinks. Public opinion is against it. The dram-drinker is not countenanced in polite society. All business enterprises and corporations are discriminating against those who use alcohol. The great railroad systems put as a first question to an applicant for a position in their employ, "Do you use alcoholic drinks of any kind? If so, how much, and what?" Not content with the answers of the applicant, his character upon that point is closely investigated at home where he is known. Should it appear that he uses intoxicants, he is at once refused a position. Further, an employee is at once dismissed if found at all under the influence of liquor; one drink is recognized as to that extent unfitting a man for a trustworthy position in the employ of the company. One of the most important questions in all life insurance applications is, "Does the applicant use any stimulant in the form of any alcoholic drink?" Should it be shown that he is a regular drinker, he is at once rejected. The fraternal orders are all black-listing saloon-keepers and bar-tenders.

These things are cited to show the current of public opinion. The retail sale of liquor is regarded by communities as disreputable, but are we not "straining at a gnat and swallowing a camel?" Forty years ago the United States imported 72,000 pounds of opium; in 1880, 372,000 pounds, and in 1893, nearly one million pounds. This increase is largely out of proportion to the increase of population and the legitimate demands of medicine. The medi-

cal and surgical world were never more united upon any one question than in an effort to discourage the use of opiates in many diseases where it was formerly thought and taught to be a *sine qua non*.

Within the twenty years of my practice I can see that not more than one-fourth as much morphin is used now as was used when I began work. The teaching of today is, that when in doubt as to the propriety of an opiate, do not give it. The medical profession then is not to be censured for the increase in the consumption of morphin. Its use is continually discouraged by all reputable practitioners of medicine. Of course, in incurable diseases in their last stages, such as cancer and such like, a sufferer is excusable if he uses the drug, but not otherwise.

The physician is frequently unjustly blamed because Mrs. A or B, or Mr. C or D, uses an opiate. In not one case in a thousand of this kind should any blame attach to the physician, because had he or she never taken a dose of an opiate, except when it was prescribed by the physician, there would have been no trouble, but having once found relief he concludes that he can free himself from pain, and at the same time save the cost of calling the physician, by bringing out the morphin bottle or the opium pill that has been put by for an emergency. Relief once obtained in this way invites another trial, and soon the habit becomes fixed and the party becomes a morphin habitue or an opium eater or smoker. Is the physician to blame in such a case? Nay, verily. He did right. His patient must shoulder the blame. The severity of the pain, when the physician was called, demanded relief, and a relaxation of the spasm of the muscles was necessary before the cause of his suffering could be removed. For this purpose the opiate was given. The physician had nothing to do with the subsequent doses. Had they not been sold to the patient he would not have been tempted and would not have fallen. A dose of an opiate, excepting paregoric or laudanum, should never be administered, except as ordered by a physician.

On September 13th, 1894, this fact was most forcibly impressed upon my mind. I was called to see a two-year old child suffering from enteritis. The patient had been well treated by the attending physician with no improvement. On consulting in regard to the case a course of treatment was readily agreed upon, and it was remarked by the attending physician that he had not been able to

quiet the child with what he considered full doses of an opiate, repeated every two or three hours. The mother, when called and questioned in regard to the dose of paregoric given the child, stated that she was administering a full half-teaspoonful every two hours, but that it had no effect upon the child. To an inquiry as to whether she had ever given the child any form of an opiate, she answered that she occasionally gave it a small dose of morphin; that she began using it for the relief of crying spells, when younger. Asked to show how much morphin she gave as a dose, she measured out a full third of a grain, for *a child about two years old*—fully seven times a dose. This at once revealed why no effect had been obtained from the medicines already administered. The dose of morphin was measured from a bottle produced from the family medicine shelf. No physician had ever advised morphin for the child. Too often it is the case that the first investment made in a family when a child is born is a bottle of “soothing syrup,” Bate-man’s drops, somebody’s “quick cure for colic,” or some such like remedy. All of them are sold and warranted to contain no morphin, nor opium. The various consumption cures and cough remedies, with high-sounding titles—too many often with the certificate of some business man, lawyer or preacher appended, attesting their virtues—put upon the market at the present time, and sold over the druggists’ counters, are to blame for many a ruined member of society, cursed with the opium habit. This is not overstating the matter, rather understating it. Ninety-nine out of every hundred of those varied preparations sold, contain opium in some form, although they state upon their face that they contain no “morphin.” They may not contain simply morphin, but the foundation of them is some preparation of opium, and they sell because they stop the cough and make the patient “feel good.” A dose of paregoric, laudanum, opium or morphin would do the same. Once having obtained relief, that patient advises some one else of the wonderful relief and benefit he or she obtained, and the new victim tries it, and soon a full-fledged opium habitue results. Should a dose of such stuff be given to the offspring of a morphin-using mother the smouldering fire at once begins to burn. The thing necessary to develop the habit has been given—the match has been applied to the rubbish pile, and it at once blazes up and burns with a flame that cannot be subdued.

Doctor Crothers of Hartford, Conn., cites many cases in proof of this statement. One will answer my purpose. To parents, both neurotic and probably opium users, a child was born. They died leaving the child nervous and irritable. Morphin was accidentally given to quiet it and from that time forward it became delirious without a daily dose of morphin. At ten years of age it died, a confirmed morphin user. The literature of the day abounds in such cases. Was the physician to blame there? Nay, verily.

I have in my own experience met with a similar case where two sons, born to an opium-eating, morphin-using father, shortly after budding into a promising young manhood, both began the use of whisky and morphin and soon became wrecks mentally, morally and physically; one dying not long since, the other being in every sense of the term, a wreck. Though living, he is worse than dead.

Dr. Jules Rochard in the *Union Medicale*, draws a gloomy picture of the increase of the morphin habit in France and elsewhere. The habit, he finds, becomes incurable at the end of six months of indulgence. The fair sex and the doctors are, in his opinion, most deeply addicted to the use of morphin. Women seek less to hide the vice than do men. As a rule men, and especially medical men, take the greatest pains to hide their vice, hence the number of those who use the drug cannot be correctly estimated. In many cases parties have used the drug for years without being suspected of such a habit; the current literature abounds in many such cases. A few years ago I was treating a medical friend in a case of pneumonia, and at the time was much worried by the irregular effect obtained from the medicines administered, and suspected that an opiate was being used, but could get no positive proof of the matter. A few days since I learned beyond question that my quondam patient was a confirmed morphin user. These are not exceptional cases. Numbers of just such cases, not only among medical men, but also among the laity, are cited in Hare's Practical Therapeutics. This ability to conceal the habit is one of the distinctive points in the use of alcohol and opium.

A native Chinese preacher, in comparing the two vices, stated that he found this one striking difference between the effects of the opium vice among his countrymen and those practiced by alcoholic intemperance among Americans: "When the Chinese opium smoker comes home at night he does not abuse his children and kick his wife—his wife kicks him."

The use of opium, in some of its forms, is, in my opinion, on the increase, and whilst the medical profession cannot be blamed therefor, it should, however, be held to some extent responsible for such a state of affairs, because, standing as we do, or should, upon the watch towers, we do not proclaim boldly to the families under our charge the dangers lurking in the use of all such remedies. We do not make proper inquiries about the progress of our little ones, and keep the parents posted upon the various household remedies administered. Many deaths have been reported in the cases of young children only a few months old from unknown causes, where a careful inquiry would show beyond cavil that they were cases of opium poisoning. I need not pursue this branch of my subject any further. Any one, by a little investigation, can establish the truth of it.

The druggist sells the medicine, which he buys, for the money that is in it. He does not trouble himself about the composition of it. He reads the label and notes what it is claimed to cure, and when a human being calls for a remedy to meet a certain ailment, he recalls the fact that he has on his shelves a bottle warranted to cure just such a case. He takes it down, assures his victim of the efficacy of the mixture, and sells it to him, pocketing at the same time a handsome profit. The remedy may do more harm than good, yet the druggist is not responsible. He has the stuff for sale and the man wanted it, and got it. This could be prevented, first, by allowing no patent or proprietary medicine to be sold over the counter which does not show on its label its true and exact composition. Any falsification in such matter should be punishable by a heavy fine. Secondly, no one should be allowed to sell drugs who is not a qualified pharmacist. In other words, the present pharmacy law should be improved and made to apply to the whole State.

Were these ideas carried out and enforced as laws, then all "soothing syrups," "consumption cures," "microbe killers," and such like, would show upon their face their exact composition, and the mother would know with what deadly stuff she was drenching her child, would realize how rapidly she was laying the foundation upon which, in time, would develop a full-fledged opium eater. In the next place, the law regulating the sale of poisons should be rigidly enforced. It reads as follows:

MILLIKEN AND VERTREES' CODE—ARTICLE E.

SEC. 5635. Any person who sells or delivers any poisonous liquid or substance, in addition to having the word "poison" printed or written on the label as now required by law, shall note in a book kept by such person for that purpose the name of the person to whom such poison was delivered, the date of delivery, and the kind and amount of such poison so delivered, and shall keep such book open for public inspection.

SEC. 5636. Any person violating the provisions of this article shall, on conviction, be fined not less than \$20 nor more than \$100. This article shall not apply to the prescriptions of regular practicing physicians.

SEC. 5637. Any person, except a practicing physician in prescribing for a patient, who sells and delivers any tartar emetic, laudanum, morphin, or other drugs or medicine, without having the common name thereof written or printed on a label attached to vial, box, or parcel containing the same, shall, on conviction, be punished as provided in the preceding section.

SEC. 5638. Any person who sells to any child under ten (10) years of age any poisonous liquid or drug, without an order in writing from the parent, guardian, or other person having the legal care of such child, designating such drugs, either by its name or effect, shall, on conviction, be punished as provided in section 5636, and may also be imprisoned in the county jail not more than three months.

The provisions of the law are plain. Morphin, opium and laudanum are poisons, and will kill with as much certainty as will strychnia, arsenic, and such like poisons. Not one druggist in one hundred complies with the law. No register is kept in which to note the sale of poisons. Anything called for is sold, and no question asked, except, "Where is the money?" When that is produced the sale is completed, and the drug is delivered. Often and over a child of less than ten years of age steps into a drug store with a fifty-cent piece and a small scrap of paper, inscribed with one word—"morphin." No name is signed, and no questions are asked. The bottle of morphin is wrapped up and passed to the child over the counter. A death may follow the sale, but the morphin cannot be traced. No register is kept in which the sale is noted, and hence no proof exists that A or B sold the poison, and no prosecution follows. Druggists say that the amount of opiates sold is beyond the comprehension of the average doctor even; that they sell it day by day without knowing or even inquiring for whom it is bought. Such should not be the case, but so long as any irresponsible party or child of tender years can buy without let or hindrance, the awful traffic will grow. If the law were enforced to the letter, and the name of the purchaser of every grain of morphin entered in a public ledger, open to the inspection of friend or foe (where the buyer did not present the prescription of a reputable physician for the drug), a halt would promptly be called. Even a chronic opium user would draw back and hesitate to allow the public to know the quantity of the drug he or she con-

sumes, for it is an incontrovertible fact, that open and notorious morphin habitues will always minimize the amount of the drug used. Time and again, in answer to the question as to how much the individual used, have I been given a quantity of about one-third or one-fourth of the amount that I knew was consumed by them. The opium eater does not want the public to know how much he consumes. The habit is carried on in secret for years, till it bursts upon the public in some unexpected way.

The users of the drug will sacrifice money, place, position, honor, nay verily, in some cases, even virtue itself, to obtain the vile stuff, and until some sacrifice of this kind is made upon the altar of appetite, the habit remains concealed. It is a habit more seductive than alcohol, because, so to say, for a long time it can be kept as a private vice, whilst the habit of using alcoholic drinks cannot be kept long concealed. The odor upon the breath, the bloom upon the nose, the flushed face, the protruding abdomen, and many other signs, soon proclaim the dram drinker, whilst opium can long be indulged in without being generally known. The sleepy state as the drug wears off can be accounted for by a rest broken by watching a sick friend, or an undue nervousness from some cause. The female sex does not often, in the country and small towns, become addicted to the use of alcohol, whilst opium claims more of them as its devotees than of the male sex. The latter attracts men and women; the former, as a rule, men only. If the vicious habit, the use of opium in any of its forms, imposed a penalty *only* upon the person using, then the damage done would not be so great, but the unborn child suffers—the evil is entailed. The sins of the mother are visited upon the children of even the third and fourth generation.

The child, through no fault of its own, must suffer from the evil habits of one or both its parents. This state of affairs should not be. The strong arm of the law, which looks closely after the monied interests of the child left an orphan, should be invoked to prevent a far worse condition than that of a moneyless orphanage. The child, with no constitution at all, or with one leaning to vice and immorality, is a proper charge upon the State. If the State does not engage in prophylaxis, later on she will find that curative measures are both costly and, in many cases, without any favorable results. Let then the physician do his part and the laity their part,

and let both see that the letter of the existing laws are carried out, and both work together to get better laws enacted, and a great step will be taken in the fight against opium. Prevention is better and more available in this instance than any other course.

As both a preventive and curative measure, all chronic inebriates and opium eaters should be committed to the insane asylums for treatment, and kept there until completely cured. No half-way measures should be taken in such cases. Laws should be passed, broad enough in their scope to reach all such cases, and so drawn as to meet all objections that could possibly be urged against them upon the personal liberty question. They should, to all intents and purposes, be treated as persons dangerous to the public and not permitted to be at large. The insane dodge is put up by them when they violate the laws of our State, and this method of treatment simply would recognize the possibility of the existence of such a state of affairs.

This paper has been written to air no pet theory of my own, but to invite the attention of the society to a great and growing evil.

[Since the above was written, I am more deeply convinced than ever that our legislature should prohibit by special statute the sale of any of the preparations of opium, chloral, or cocain, except upon prescriptions of registered physicians, and that inquisitorial powers should be given to grand juries in all such matters. The damage done by the sale of these drugs, unrestricted as it now is, is rapidly reaching that done by whisky.]

THE SCHLEICH METHOD OF GENERAL ANESTHESIA, WITH SPECIAL REFERENCE TO NOSE, THROAT AND EAR PRACTICE.*

BY W. SCHEPPEGRELL, A.M., M.D.

President Western Ophthalmologic and Oto-Laryngologic Association.

NEW ORLEANS, LA.

While chloroform and ether have been of incalculable benefit in relieving the sufferings of mankind, still the element of danger has never been entirely eliminated. Various means of applying these anesthetics have been devised and different combinations suggested, but the report of deaths from general anesthesia is still not an unusual occurrence in our statistics. Several other preparations have been used, such as ethylic bromide, nitrous oxide, etc., and

* Read before the Orleans Parish Medical Society, November 26, 1898.

while these have the advantage of a lower rate of mortality, this is offset by the fact that they are adapted for operations of short duration only, which will probably always be a serious objection to their extensive use.

It has been shown that the deaths from chloroform average about 1 in 2000, while ether has reduced this to 1 in 10,000. This lower degree of risk has been deemed sufficient in some States to lead to the enactment of laws compelling the physician to use ether for surgical narcosis, and even to consider a death from the use of chloroform in such cases a criminal offense. The use of ether, however, has several serious contraindications, and especially in inflammatory processes of the respiratory tract.

While ether is a less dangerous anesthetizing agent than chloroform, and ethylic bromide and nitrous oxide less so than ether, still this difference is only one of degree, as none of these are without a certain percentage of fatality.

General anesthesia during operations on the nose and throat is especially difficult, as it is frequently impossible to administer the anesthetic without repeated interruptions. It is important in these cases to have an anesthetic from which the narcosis can be sufficiently complete so as to continue for some minutes while the inhaler is withheld, at the same time without endangering the life of the patient.

Investigators have long endeavored to devise an anesthetic which would minimize the dangers from general anesthesia, and remove from the surgeon an item of serious responsibility in his operative procedures.

An improvement in general anesthesia which has recently received considerable attention, and which is the subject of this communication, is based on the adaptation of the boiling point of the narcotic to the temperature of the body. After an elaborate series of experiments on animals, Dr. C. L. Schleich, of Berlin, arrived at the conclusion that the absorption of a general anesthetic is dependent upon (1) the surrounding temperature, and (2) the boiling point of the anesthetic. The difference of absorption between ether and chloroform depends, according to this theory, upon their relative boiling points. If a narcotic with a very low boiling point, such as ether, which boils at 93 degrees F., be administered, the evaporation is so intense at the temperature of the human body

that it interferes with the respiration and hinders the dissociation of the respiratory gases. The retention of the carbon dioxide, which is under less pressure than the vaporized ether, produces cyanosis, and the distention and tearing of the epithelium of the alveoles from the vaporized ether may cause lesions which will lead to secondary pneumonic inflammation.

With chloroform, on the other hand, the boiling point of which is 189 degrees F., this expansion and evaporation does not take place, and it is therefore absorbed and eliminated through the action of the heart, kidney and liver, and this probably explains the irritation of these organs frequently observed after the administration of chloroform.

A safe narcotic would, therefore, be one in which the conversion into vapor is not so rapid as in ether, and at the same time not so slow as in chloroform, in which the absorption by the blood is greater than is required for the narcotic effect. Schleich has demonstrated that the value of the well-known combination of 1 part of chloroform to 16 of ether, known as the "Vienna mixture," depends upon the nearer approximation of the boiling point to the temperature of the body. In Schleich's experiments he used a combination of ether, chloroform and benzin. He maintains that these three agents form an ethereal fluid, which is a true solution in a chemical sense, the boiling point of which depends upon the relative proportion of the various ethereal substances, so that a combination can be made the boiling point of which closely approximates the temperature of the animal or human subject to which it is administered.

It is still a subject of discussion whether these form a true solution or simply a mixture. Dr. Weidig, who has made some investigations in this line, states that while no free chloroform could be found in each of the three solutions, free sulphuric ether in varying proportions could always be obtained. As this free ether must, according to Schleich's theory, be an injurious element, it is to be hoped that a combination will be effected in which a complete combination can be maintained.

Three different solutions are recognized by Schleich, the proportion being made up by volume:

No. 1—Boiling point, 100.4 degrees F. Chloroform, 45 c.c.; petrolic ether, 15 c.c.; sulphuric ether, 180 c.c.

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No. 2—Boiling point, 104 degrees F. Chloroform 45 c.c.; petrolic ether, 15 c.c.; sulphuric ether, 150 c.c.

No. 3—Boiling point, 107.6 degrees F. Chloroform, 30 c.c.; petrolic ether, 15 c.c., sulphuric ether, 80 c.c.

From an experience in 100 cases Dr. Willy Myer (*Medical Record*, January 8, 1898) states that the excitement is rare during the induction of the anesthetic, not marked at any time, and that there is rarely an accumulation of mucus, and no cyanosis. The respiration is not impaired as long as the narcotizer attends to his work. The type of the respiration is the direct index of the patient's condition, and when the former becomes deep and frequent it indicates the approach of the danger limit. When the anesthetic is withdrawn the patient awakes more rapidly than after chloroform or ether have been administered, more than one-half of Schleich's patients walking home an hour after being anesthetized. Vomiting occurred, but was less frequent than from other narcotics. In not a single instance was there consecutive bronchitis or pneumonia. Albumin was found in only 4 per cent.

Favorable results from this method are also reported by Drs. Ralph Waldo, Franz Torek, Parker Syms, M. L. Maduro and Florian Krug (*Medical Record*, Jan. 9, 1898). In 100 cases in which this method was employed Dr. H. J. Garrigues (*Phil. Med. Jour.*, June 11, 1898) found that the average quantity necessary to produce anesthesia was 17.5 c.c., six minutes being the average time for the anesthesia to have effect; the average duration of the narcosis was 52 minutes. He used an Allis ether inhaler, leaving the top open until the patient was nearly unconscious. He prefers the No. 1 mixture, and would use the No. 3 only in those cases in which the narcosis was not sufficiently profound.

In 56 cases in which this method was used Dr. A. E. Engzelius (*Medical Record*, June 11, 1898) reports that the conspicuous features were the absence of vomiting, the lessening of the stage of excitement, and the moderate cyanosis present. The longest application lasted two hours, this requiring four ounces of the No. 3 mixture.

This method has also been used by Dr. Emil Mayer (*Phila. Med. Jour.*, Oct. 15, 1898) in 23 cases, the majority of these having been for septal and adenoid operations, and he prefers the No. 1 mixture. Briegleb (*Centralblatt f. Chir.*) is enthusiastic over this method, and compares it with the great discoveries in modern science.

For short operations, such as tonsillotomy and adenotomy, I have obtained such uniform good results from the administration of ethylic bromide, that I have not felt inclined to experiment with other narcotics in these cases. An experience of many hundred operations, and the use of a chemically pure preparation dispensed in sealed tubes, has enabled me to perform these operations with a minimum of danger, slight reaction, and without pain.

The use of general anesthesia in such cases deserves special consideration. Statistics have shown an alarming mortality from the use of chloroform in adenoid operations, Hinkel (*N. Y. Med. Jour.*, Oct. 29, 1898) having recently collated 18 cases. As an explanation of this high rate of mortality, the observations of the Viennese pathologists, Paltauf and Kolisko, are of special interest. A post-mortem examination of a number of cases of sudden death from apparently slight causes developed the fact that in these cases there existed a general hypertrophy of the lymphoid tissue throughout the body, including that of the nasopharynx and of the tonsils. The intestinal follicles were hypertrophied, the thymus gland persistent and frequently enlarged, and the heart was often found dilated, independent of any valvular lesion. Patients so constituted, although apparently of robust physique, have little resistance to comparatively slight shocks. This condition, which has been called *habitus lymphaticus*, was found present in a number of cases of death following chloroform administration.

In hypertrophy of the pharyngeal tonsil, this condition is frequently met with, the hypertrophy in the nasopharynx being simply a local expression of a general constitutional condition. Brickner (*N. Y. Med. Jour.*, Oct. 29, 1898) and others have therefore advised that chloroform should be rigidly excluded in such operations. Hinkel (*N. Y. Med. Jour.*, Oct. 29, 1898), who recently reported, before the American Laryngological Association, a case of death following adenoid operation under chloroform, also maintains that the use of this anesthetic in hypertrophied tonsils and nasopharyngeal adenoids is inadmissible.

While chloroform forms only a minor part in the Schleich mixture, its use is nevertheless, in my opinion, contraindicated in operations for adenoids or enlarged tonsils.

In extensive operations on the nasal septum, frontal sinus, mastoid cells, etc., ethylic bromide is not sufficient for the prolonged

narcosis necessary in such cases, and as a safer anesthetic than chloroform or ether is desirable, I have used the Schleich mixture in such cases, and with satisfactory results corresponding to those already mentioned.

An excellent field for investigation in general anesthesia refers to cases in which the patient is suffering from renal affections, or from other pathologic conditions, in which the surgeon always feels a grave responsibility in the administration of a general anesthetic. The following case of a mastoid operation on a patient suffering from diabetes mellitus, in which the Schleich method of general anesthesia was used, will therefore be of interest :

Mr. H. M., æt. 57, was referred to me by Dr. Surghnor, of Monroe, La., the patient suffering from purulent inflammation of the mastoid cells. The patient had suffered for many years from diabetes mellitus. A chronic non-suppurative otitis media had existed for ten years. As a result of exposure, a suppurative otitis media developed. Three weeks later the symptoms of mastoid involvement presented themselves, pus eventually finding its way through the mastoid process, and was liberated by a superficial incision.

Some weeks later, Dr. Surghnor brought the patient to the city and referred him to me. An examination showed extensive necrosis of the mastoid cells and proliferation of granulation tissue. The patient had a temperature of a $101\frac{1}{2}^{\circ}$, and had suffered from attacks of vertigo. A radical operation was urgently needed. On account of the diabetes mellitus, however, the question of the administration of general anesthetic was a serious one. Cocain was contraindicated, not only on account of the extent and location of the diseased area, but also on account of the neurotic temperament of the patient.

It was finally decided as a measure of safety to administer one of the Schleich mixtures, No. 2 being selected, and an Esmarch inhaler used. The operation was performed at the New Orleans Sanitarium, Dr. H. B. Gessner administering the anesthetic, and Drs. Surghnor and Abby assisting me in the operation.

The stage of excitement was practically unnoticed, and in ten minutes the patient was fully narcotized. The usual mastoid operation was then performed, all the diseased area removed, granulations curetted, and a free opening to the middle ear established. At no time did any adverse symptoms develop. There was no excessive formation of mucus and no cyanosis at any time, and the effects of the anesthetic were, on the whole, of the most gratifying character. The patient recovered from the narcosis quietly, and developed no nausea or vomiting.

In addition to the rapid and uneventful recovery which the patient made, the daily record of the trained nurses in charge showed that at no time was there any elevation of temperature above the normal. Three months after the operation the patient called at my office and claimed that he felt unusually well, and that he had suffered no aggravation of the diabetes as a result of the anesthetic.

All reports made thus far of the Schleich mixtures for general anesthesia have been of an encouraging nature. The preparations,

nowever, have not been in use for a sufficient length of time, and the number of cases are not yet enough to allow us to make a fair comparison with other methods already in vogue. This should make us careful in not exhibiting too much enthusiasm in its use. It appears to have an especial useful field in cases in which chloroform and ether are contraindicated. The results in the case above reported are certainly gratifying, and deserve special attention.

Medical Building.

THE SUCCESSFUL THERAPY OF CHRONIC POSTERIOR URETHRITIS, WITH REPORT OF CASES.

BY S. E. PINCUS, M.D.

MEMPHIS.

This clinical report is intended to show that most cases of chronic posterior urethritis can be permanently cured, if the physician will only study them and give them his careful attention.

Chronic posterior urethritis is due to neglect in treatment of the acute stage of gonorrhea. When a young man becomes infected with gonorrhea he nearly always goes to some friend or druggist for advice and treatment, resulting in his getting some patent medicine injection which has cured (?) his friend, or he falls into the hands of a practitioner who hasn't time to treat a case of gonorrhea as it should be treated.

Gonorrheal cases should be treated in your office; if patients are entrusted with injections to carry home to use, the result will be a chronic urethritis in the majority of cases. Since the acute stage (uncomplicated) usually runs its course in four to ten weeks, the patient will often get careless and stop treatment then, since he suffers no pain or inconvenience. He may tell you he is well, but "just has a little gleet." In my opinion he is in worse condition than ever. I don't want to be understood to say that every time a man has the "morning drop" he has chronic urethritis; this sometimes is due to old strictures or old chronic inflammations, and a careful microscopic examination of the urine will prove whether there is gonorrhea or not. It will not do to rely upon one microscopic examination for a diagnosis; make several, because you may

fail to find gonococci in the first specimen. Fortunately the public is becoming educated in regard to the serious termination of neglected gonorrhea; the old saying "I would rather have the clap than a bad cold" is fast going out of vogue.

I think it is criminal for a physician to prescribe an injection for a case of gonorrhea and let the patient use it himself, without waiving all responsibility as to the result.

As before stated, the majority end in a chronic urethritis; and the greatest sufferer is the innocent and unsuspecting woman who marries a man in this condition. I cannot say the man is at fault, because he is under the impression that he is entirely well; but I do blame the physician who treated his case, because he should be the one to make the examination and tell the patient whether or not he is well. I have a patient under treatment at present who has not had any discharge for over two weeks, and yet has a gonococcus infection. He insists, however, that he is well.

Treatment. The first thing to do is to completely gain your patient's confidence. Don't make any promises as to the time it will take to cure him, because if he is not well in the time specified he will become discouraged, or perhaps lose confidence in you.

The treatment I use is easily followed and quite successful in my hands. I use the Valentine irrigator, and I wish to say right here that it is useful in more ways than one. First of all, it makes an impression upon the patient; second, it gives less pain than strong injections. For irrigating I prefer permanganate of potassium in solutions of from 1:10,000 to 1:3000. This is used for four or five days. Then I make an endoscopic examination. If I find any ulcers (these are the rule) or granular patches I make an application of nitrate of silver (grs. 40 to the ℥i). This is easily done through an endoscope, and the nitrate of silver only comes in contact with the diseased mucous membrane. A mucous discharge showing gonococci nearly always follows, proving that the gonococci bury themselves in the tissues. After touching the ulcer I immediately irrigate with potassium permanganate. I use the irrigation throughout the entire course of treatment. Another remedy from which I have derived excellent results is protargol, in solution of 1 to 4 per cent. I use it immediately

after the irrigation. It nearly always increases the discharge, but after using it three or four days the pus cells become granular, and if gonococci are then present they lie *outside* of the cells and are not in colonies. I find a Keyes syringe very useful for deep urethral injections of protargol.

Finally, it is very important to look after the urethra after the patient is well. As it is nearly always left in an anemic condition after long-standing cases of chronic urethritis, I use cold sounds, passing them once or twice a week. This stimulates the mucous membrane, breaks up sub-mucous cicatrices, and reestablishes a proper circulation. The following will more fully show the value of individualizing cases.

Case I. Mr. B., aged 30, came to my office April 25th, saying he had a case of gleet of eleven months standing. He had been treated by several physicians without benefit, and he did not have very much hope of ever getting well. Dr. Krauss made a microscopic examination of his urine, and found gonococci in abundance. I irrigated the urethra for a week with the "permanganate," then by endoscopic examination found two ulcers—one about the center of the membranous portion, and one a little further down. An application with argentic nitrate, 40 grs. to ℥i , was made, and irrigation done immediately afterward. The discharge was increased; continued irrigation, and followed it with protargol, 2 per cent. This treatment was continued for two weeks. Endoscopic examination then showed the urethra normal. The protargol was stopped, the permanganate continued (1-3000), together with cold sounds. After several consecutive microscopic examinations I discharged patient August 2nd, cured.

Case II. Mr. H., aged 27, came to my office May 16th. He had a profuse discharge, with no external inflammation. Microscopic examination showed gonococci in abundance. I began irrigating with potassium permanganate (1-6000) twice daily for two weeks, then increased strength of solution to 1-3000. The discharge had subsided, but still contained gonococci. I then began the use of protargol after each irrigation. By June 10th the discharge had diminished to the morning drop. Microscopic examination showed no gonococci, and the pus cells had become granular. On June 14th examination of pus threads from the urine showed gonococci. The patient, unable to bear further restraint, imprudently drank alcoholics and had sexual intercourse. Three weeks later he again had a very profuse discharge. I resumed the irrigations twice daily. Two weeks later made endoscopic examination and found ulcer in posterior urethra. Usual application was made, which was repeated six days later. After five more days the urethra was smooth; continued irrigation for a few days; microscopic examination showed no gonococci; used cold sound for some time, passing them twice a week. Discharged patient August 17th, cured.

Case III. Mr. L., aged 26, applied for treatment March 2nd, giving a history of gonorrhea of about four weeks standing. His penis and scrotum were swollen, and he had a profuse yellow discharge. I noticed that he had had several punctures in the penis, evidently to relieve congestion. Two of the punctures were infected. He had a prescription for an injection containing zinc, lead and hydrastis. For three weeks he had been

under the treatment of a physician, and then used Injection Brou for a week. He was ordered to bed, and hot sitz-baths and hot applications to scrotum were used. I gave him citrate of potassium and tr. hyoscyamus to render urine alkaline, as the pain on urinating was excruciating. The puncture just behind the corona formed an abscess. I made an attempt to drain it through the urethra, to avoid a fistula, but was unsuccessful, as it already had a small opening externally, discharging gonorrheal pus. March 30th patient showed improvement, and the swelling was subsiding. Began irrigating with sat. solution of boric acid, followed later by "permanganate," which was used twice daily. March 20th patient sent for me to come to his room. His scrotum was again swollen, and thermometer showed a temperature of $103\frac{1}{5}^{\circ}$. I advised patient to go to St. Joseph's Hospital; had Dr. Krauss to make blood examination for plasmodia, and also with Widal test for typhoid fever. Both were negative, and repeated examination gave same result. The patient had an acute gastritis, which only lasted twenty-four hours; also had sharp shooting pains through left wrist and right knee joint. The temperature kept up eleven days, ranging from $99\frac{2}{5}^{\circ}$ to $103\frac{3}{5}^{\circ}$; no particular time for its highest point. I did nothing for temperature, but gave patient small doses mercury, and kept ice-bag to scrotum. The authorities claim there is no such thing as gonorrheal fever. Was this a case of gonorrheal fever or not? I then began the use of protargol, 2 per cent., when patient left the hospital three weeks later. He had a slight discharge and a fistula; the protargol and twice daily irrigation cured the former in ten days. Patient then left the city for four months, and when he returned he was well of gonorrhea, but still had a fistula. I curetted the tract down into the urethra under cocain and packed it. Result unknown, as patient left the city.

Case IV. Mr. M., aged 31, came to my office April 22nd, with a history of a long-standing chronic posterior urethritis; said he was under the treatment of a physician for four months. The discharge would stop for several days, but as soon as he would have sexual intercourse or take alcoholic beverages he would have a discharge. He was under the impression that he had contracted another case of gonorrhea. After four days' irrigation endoscopic examination showed an ulcer and granulations in posterior urethra; made usual application. The next day he had a very profuse discharge; irrigations twice daily. Six days later found urethra smooth, ulcer smaller; made application again, which increased discharge containing gonococci. Continued irrigation, followed by protargol, 2 per cent., for six days. Result: no gonococci. Irrigated daily for a week longer, then used cold sounds three times a week. Discharged patient June 30th, cured.

Case V. Mr. D., aged 27, came to my office April 12th; said he had had the gleet for eighteen months, and had been to Hot Springs; also had been under treatment for months, under several physicians; said he suffered no pain or inconvenience from the trouble, but he was satisfied that he was not well. After using the irrigation (1-5000) for six days, I made endoscopic examination and found three ulcers in posterior urethra. Made application of silver nitrate, which was followed by a violent discharge, lasting three days. Six days later endoscope revealed only one ulcer; pursued same treatment; continued irrigation twice daily. April 30th discharge had stopped, but the urine still contained pus threads showing gonococci; urethra was smooth and anemic. Passed a No. 30 sound, after which there was a discharge of yellow pus, which came from the seminal vesicles, there being present spermatozoa and blood cells. Made an attempt next day to strip the seminal vesicles, but was unsuccessful, as it was too painful to the patient.

Irrigated the bladder with potassium permanganate (1-8000) and let patient pass it out through urethra, then injected protargol, 2 per cent., with Keyes' syringe into prostatic urethra. Continued this treatment for six days, with marked improvement, no gonococci being found in three examinations of urine. Discharged patient July 2nd, cured. Advised him to visit my office once a week, which he did for three months; passed a 30 F. sound; repeated examination showed no gonococci.

57 and 58 Continental Building.

A CASE OF ENCEPHALITIS.*

BY W. M. CATTO, M.D.

DECATUR, ILL.

On the night of September 24th, 1897, M. L., a robust, healthy child of 5 years, stood with her back against the edge of an open door while undressing. In this position she was in the act of pulling off her stocking when the door swung slightly, causing her to slip. She sat down on the floor suddenly, at the same time giving her neck a violent wrench. She screamed for a moment with pain in the neck, and vomited. This, however, subsided in a few minutes, and in the morning she complained but slightly of occasional pain in the neck at the base of the skull. This continued for about three weeks, the child attending school and playing about as usual; but her appetite was somewhat lessened, and she did not seem quite well.

About this time, October 12th, she contracted a heavy cold, and her mother brought the little one to my office to have me prescribe for this, and incidentally mentioned the fall, saying she had not seemed just right since. There were no marked signs of injury; the head and neck were freely movable in all directions, but the little patient was inclined to tilt the head slightly to the right, and on the opposite side of the neck the muscles were slightly rigid. The temperature was normal, the pupils slightly enlarged, reflexes perfect, the body plump and well nourished. Pressure over the axis and also over the basilar junction caused decided pain.

Upon eliciting the foregoing history, I instructed the mother to put the child to bed at once, and not to allow any but the recumbent position until further orders. This was difficult to carry out, owing to the age of the child and the little apparent trouble. A week or two later, however, I was called to see her, and found the neck less movable, the tenderness more pronounced, and the pain more constant. She suffered when she assumed certain positions, and occasionally vomited.

I insisted on her being kept in bed, and November 16th applied a strong padded leather collar, extending from a brace across the shoulders to above the occiput, conforming to the contour of the head and neck, being buckled snugly under the chin and held forward above by an elastic strap over the forehead. This contrivance secured nearly complete immovability, and for a time seemed to afford relief, but soon the trouble grew worse. The little patient began to have frequent attacks of vomiting, aggravated by taking food, and soon she was unable to retain any great quantity of

* Read before the Central Illinois Medical Society at Pana, October 25, 1898.

nourishment. The vomiting and pain were always worse in the morning after waking and attempting to take food.

In December she suffered with a sore throat, the fauces being somewhat sphacelated, but this subsided in a week or ten days. After this time, examination with the finger in the throat showed an apparent prominence of the atlas, with protrusion forward. I say *apparent* as it was really due to atrophy of the muscles, as was afterward demonstrated.

During January 1 and 2, 1898, the pain seemed much aggravated, and was referred to the top and back of the head as well as to the neck. The pupils were noticed to be dilated, and did not respond readily to the influence of light. After this, for a few days, she complained less of pain, vomited less, retained more nourishment, and seemed to improve somewhat in strength; but from the 11th she grew steadily worse, all the former symptoms being intensified until the 28th, when the first convulsion occurred. From this time until the 31st she vomited frequently; the head was drawn more to the right, and she lay on the right side. On the last mentioned date she had another convulsion, followed by three more on the following day, February 1st. From this time until February 11th there was neither vomiting nor pain; she slept well and was nourished by enemata.

On February 12th the pain and vomiting returned, and continued persistently until the 23rd, when she again had several slight convulsions. The nose bled freely, the pupils were widely dilated, and involuntary twitching of the lower limbs was noticed. Knee jerk abolished, she became extremely sensitive to sound, and the skin of the arms and the upper part of the body became markedly hyperesthetic. About this time, March 1st, it was noticed that the vision began to be impaired, and in a few days she was wholly unable to see.

About March 2nd the lower limbs became strongly flexed—the legs on the thighs, and the thighs upon the abdomen. She was unable to straighten them, nor could she allow them to be extended. Evacuations became involuntary. March 29th there appeared some difficulty in respiration, and she complained of a buzzing sound in the ears; but up to this time hearing was seemingly unimpaired. The speech now became somewhat hesitating and jerky. From April 1st to 15th the vomiting was very frequent and distressing, and she grew very weak. There was noticeable tremor of all the voluntary muscles. Little change was noticeable to June 1st, except that she grew gradually weaker and more emaciated, and complained at times of being cold and faint.

June 1st she was unable to use the right arm; the hyperesthetic condition before mentioned became lessened, and she slept more. June 17th the first rise in temperature took place. The speech became difficult, the breathing labored, and the hearing seemed impaired. The pupils heretofore widely dilated now became contracted, and the act of swallowing was accomplished with great difficulty. June 25th the left arm also became paralyzed; respiratory movements of the left side were almost abolished, and the temperature ranged from now on between 102° and 105° F. A noticeable enlargement of the head had existed for some time, but on July 1st it was very much enlarged. The sutures were forced widely apart, and palpation over the suture openings showed the presence of a large quantity of fluid within the cranium. July 5th typical Cheyne-Stokes respiration began. July 7th the size of the head was noticeably lessened, and whereas the child had been unconscious for some days she now began to talk again, and was very wakeful. Profuse diarrhea was present; the temperature continued 104° and 105° until July 10th, when she again became comatose, and quietly passed away.

The autopsy, in which I was assisted by Dr. John T. Miller, was made forty minutes after death.

The body was emaciated to the last extreme; post-mortem rigidity normal; the head was enlarged, and the sutures could be felt widely separated. The scalp was deflected in the usual manner, when the frontal and parietal bones were easily removed by simply incising the suture lines with a scalpel, and separating the adhesions to the dura mater, which were quite firm. The membranes were thickened and opaque. A quantity of clear serous fluid was formed in the subdural space; the subarachnoid space was completely filled with the same fluid. Between the anterior pyramids of the medulla an abscess about the size of a large almond was found, filled with greenish-gray purulent matter. The encephalon was enlarged and softened, the convolutions flattened, and the sulci obliterated. On opening the ventricles they were found to be enormously enlarged and distended with the thin clear serum before mentioned. The white matter of the brain had undergone complete degeneration, and in its place was found a large quantity of white, flocculent matter, of the consistence and appearance of thickened milk. Microscopically inspected, hemorrhagic points were found through the white matter. No evidence of tubercle.

Acute diffuse encephalitis is very rare, is difficult of accurate diagnosis, is uncertain in its course and duration, and nearly if not quite always is fatal in its results.

The clinical picture presented is necessarily varied in its features, depending on the original seat of the lesion, the order in which the different parts of the encephalon are invaded, and the rapidity of the inflammatory process.

Among the causative factors of this rare disease may be mentioned severe trauma of the head, syphilis, and it is occasionally said to arise during the course of the exanthemata and infectious fevers.

Many of the symptoms of encephalitis are common to other intracranial affections, such as hemorrhage, diseased bone, abscess and tumor. The most prominent features are headache, pain, vomiting, paralysis progressive in character, and destructive of the special senses.

SCHLEICH'S MIXTURE FOR GENERAL ANESTHESIA CONDEMNED.—Henry J. Garrigues having reported favorably on the Schleich mixtures (*Med. News*, Nov. 12, 1898) has, as the result of further experience, changed his opinion (*Med. News*, Jan. 7, 1899). Having had five cases of dangerous respiration among a little more than a hundred patients to whom the mixture was given, he revokes the endorsement which he had given it verbally and in print.

ABSCCESS OF THE NASAL SEPTUM.

A CLINICAL LECTURE.

BY WILLIAM LINCOLN BALLENGER, M.D.

CHICAGO, ILL.

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Case I. I herewith present an interesting case of abscess of the nasal septum. The patient, Mr. B. J., aged 24 years, called upon me about one month ago, complaining of chronic nasal catarrh. Upon examination, two distinct cartilaginous spurs (Fig. 1, a, b) were seen upon the septum, one upon either side. They were located anteriorly upon the triangular cartilage at its junction with the perpendicular plate of the vomer. It is unusual to find spurs exactly opposite on the anterior portion of septum. Four days ago I removed the one upon the left side with a Bosworth saw.

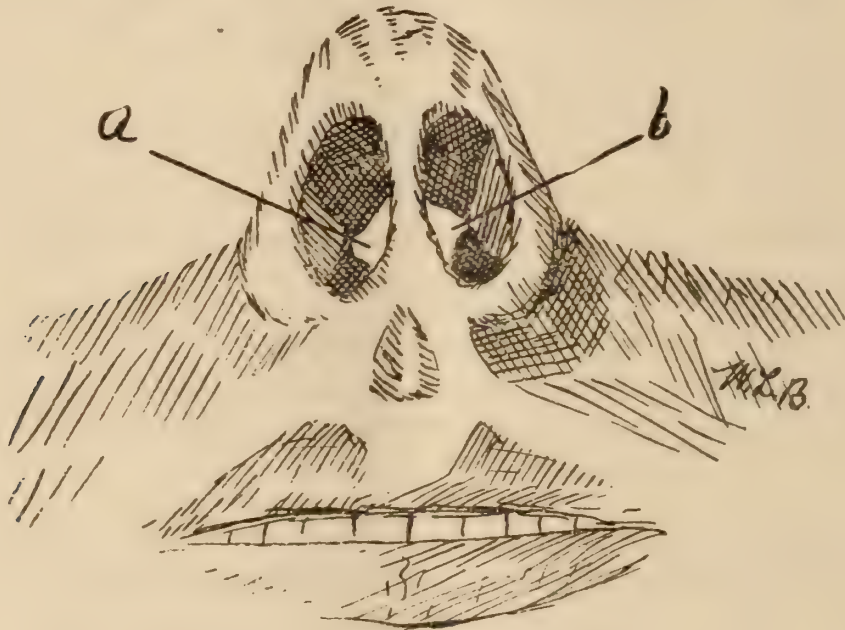


Figure 1.

He returns today with a typical septal abscess. Whether the infection occurred at the time of operation or subsequently I cannot say. Upon throwing the head back you will see a roundish tumor (Fig. 2, c, d) in each naris. Upon pressure with the probe point they prove to be soft, fluctuating tumors. The patient is compelled to breathe through his mouth, as nasal obstruction is almost complete. His temperature is 99.5° F.

The etiology in this case is undoubtedly traumatic, with cocci infection. Picking the nose to remove crusts may be the source of trauma and infection.

In the beginning, before pus is formed the swelling is hard, tense and red. After a few days it becomes soft and fluctuating,

as illustrated by this case. The condition is a comparatively rare one, but is easily recognized by the usual abscess indications.

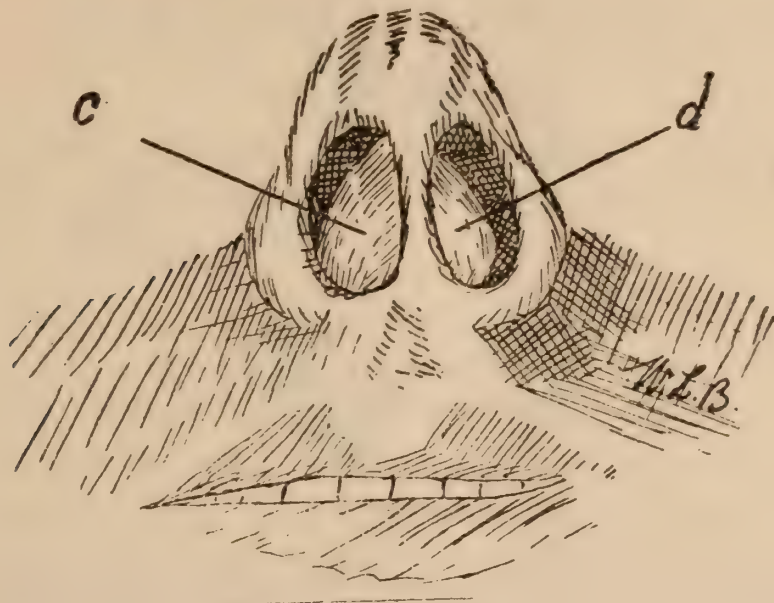


Figure 2.

The treatment in most cases is free incision, evacuating the pus. In strumous children and in chronic cases it may be necessary to curette the interior of the cyst walls, or even to remove a portion of the membrane and cartilaginous septum. In the early stage, before pus formation the application of ice and tr. iodine locally will prevent the further development of the process.

In this case we will make a free incision through the swellings upon either side of the septum, evacuate the pus, irrigate with warm boric acid solution, dust with aristol, and pack the anterior nares loosely with sterilized gauze moistened with co. tr. benzoin. The dressing should be removed in ten to twelve hours, and, after surface irrigation, another applied if needed. The second dressing will probably not be needed. Indeed, the first may be omitted in most acute cases.

NOTE.—Since delivering the above remarks to the class I can report an uneventful recovery. At the time the first spur was operated upon I arranged to do a second operation upon the other one. After the abscess had healed I found the remaining spur had disappeared during the suppurative process.

Case II. Mr. G. S., aged 37 years, clerk, complains of partial nasal stenosis, especially upon the left side. Has been troubled with nervous symptoms, as diffidence, malaise, lack of attention (aprosexia), dull headaches, etc. These symptoms are common where there is obstruction to nasal respiration. Upon examination, you will find a bony spur (Fig. 3, a) upon the right side of septum two inches from the anterior nares. The inferior portion of the triangular cartilage (Fig. 3, b) is deflected to the

left, thereby encroaching upon the respiratory space upon that side. The nose is narrow and aquiline.

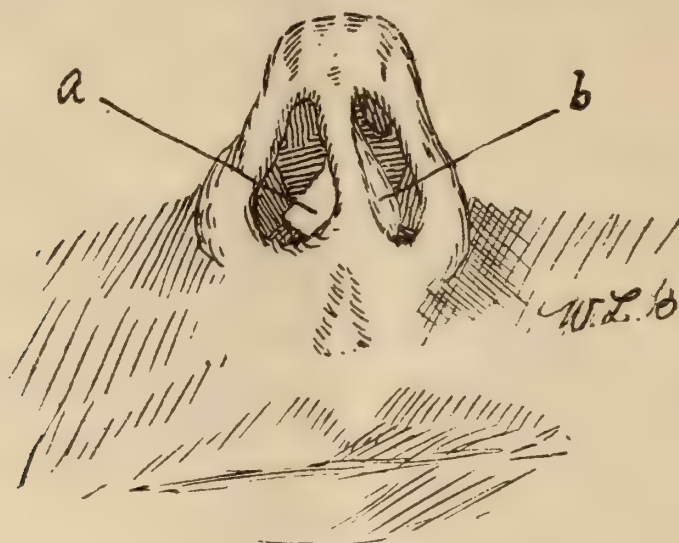


Figure 3.

We will first cocaineize the membrane over the spur, and remove it (Fig. 4) with a Bosworth saw. * * * You will notice the spur is composed of dense bone tissue, as is usual in this location. Having cocaineized the membrane over the deflected septal cartilage, we will make a linear incision along the line of greatest prominence, which is almost parallel with the septal skin, and 4 mm. from it. Through this incision we will excise a rectangular piece of cartilage, $\frac{1}{4}$ by $\frac{1}{2}$ inch in area, and close the wound with three (Fig. 4) horsehair sutures. The result is a considerable enlargement of the respiratory passage. The patient at once experiences a sense of great relief.



Figure 4.

NOTE.—The patient has had a cessation of all the nervous symptoms with which he was harassed previous to the operations.

100 State street.

CORRESPONDENCE.

GYNECOLOGY AT THE EDINBURGH MEETING OF THE BRITISH MEDICAL ASSOCIATION.

Editors Memphis Lancet:

On the way to the meeting I had the pleasure of hearing an address by Martin, of Berlin, on the Progress of Ovariectomy in the Last Twenty Years. It was a remarkable paper by a remarkable man. He has adopted the vaginal route to a great extent, and he closed his paper by giving the results of 131 vaginal laparotomies for diseased ovaries and tubes and for retroversion, ovarian cysts and small fibroids, etc. Out of these 131 cases he lost 2.

Since my return from Berlin I have performed a number of these operations at the Samaritan, Western, and at my private hospital with most gratifying results. These will be reported in full later on, but in the meantime it is of interest to note that all the patients operated by the vaginal route made a much quicker recovery than those by the abdomen. Although these included pus tubes, tubal pregnancies, retroversion with fixation, cystic ovaries and closed tubes which were opened, yet not one of the patients died. Another striking advantage was the absence of the abdominal scar; and the pain from the incision which these patients usually suffer from very acutely was entirely absent. In fact most of these patients did not require any anodyne whatever.

During the discussion at the recent meeting of the British Gynecological Society a gentleman reported a number of cases by the vagina with bad results, and the other speakers all pointed out with great stress that the vaginal route is not suitable for large tumors of any kind, whether fibroids or collections of pus, because it is almost impossible to deal with the adhesions which are so often present in these cases. In properly-selected cases I feel sure that the vaginal route has immense advantages over the abdominal one.

One of the most interesting figures at the meeting was Doyen, of Paris, who showed two new instruments: one for automatically holding open the abdominal incision, and the other his instrument

for arresting hemorrhage without ligatures by means of an enormously powerful crushing machine. The broad ligaments with the ovarian artery are seized and compressed for a minute with such force that they are completely crushed, and when it is taken off no blood flows. I was told in Paris that it was not to be depended upon, as several times secondary hemorrhages had followed. I would prefer to trust Dr. Skene's electric clamp, which desiccates the artery.

One of the most interesting features of the meeting was a cinematographic representation of an abdominal hysterectomy given by Doyen in one of the large halls of the University, at which there were over six hundred doctors present. He is a very rapid operator, and has devised a new method which only requires four minutes from the first incision until the whole uterus including the cervix is in the dish. The salient feature of his method is to put a clamp on the two ovarians and then to catch the cervix through an opening in the vagina in Douglas' *cul-de-sac*, and draw it up forcibly, tearing it away from its connections laterally and to the bladder in front. The uterine arteries are thus distinctly brought into view and clamped. He only takes two or three minutes for removing the uterus, and some eight or ten minutes more are used in tying the arteries and closing the opening in the pelvic peritoneum. I had the pleasure of being one of eight or ten who saw Doyen do two total abdominal hysterectomies for fibroid in Prof. Limpeni's service at the Royal Infirmary, and he did one of them quite as quickly as the six hundred saw him do it by the cinematograph.

Another interesting figure was Morrisanni, of Naples, a gentleman very short in stature, about three feet six, but a giant in intellect, who gave an address on Symphysiotomy in French, who was followed by Dr. John Moir, of Edinburg, ninety-five years of age, who told of the improvements in obstetrics and gynecology in his lifetime.

The hottest discussion of the meeting was on Dr. Milne Murray's paper "On the Use and Abuse of the Forceps," and incidentally Dr. Japp Sinclair's excellent paper read at Montreal last year condemning the too frequent and too early use of the forceps, came in for a great deal of abuse. Dr. Sinclair stated that the forceps was responsible for a great deal of injury to women who were

confined in the neighborhood of Manchester. It was evident that the majority of those present at the meeting were general practitioners who used the forceps to save time, and did not want to be reproached for causing puerperal lesions.

There were several interesting papers on the proper time for removing pus tubes, and the general feeling was that it was safer to operate during the interval than during the attack, as is also the case in appendicitis.

There was also a very warm discussion on the relative advantages of the abdominal and vaginal routes for removing pus tubes, and the general feeling was that it was safer and easier to remove them by the abdomen. As disease of the vermiform appendix frequently complicates pus tubes, it was pointed out that the possibility of having to remove it in any case was a sufficient reason of itself to induce us to operate by the abdomen. Dr. Macon, of Dublin, laid great stress on the importance of making a careful bimanual examination under narcosis before deciding upon the vaginal route. Landau, of Berlin, was strongly in favor of the vaginal route even for bad pus cases, and he has the courage of his convictions, for I saw him removing the uterus and both tubes and ovaries by the vagina in a very bad case when I was in Berlin.

One thing was very evident on this occasion: that while it is difficult to remove large pus tubes even after the splitting of the uterus in two and consequently sacrificing it, it is well nigh impossible to remove them through an opening in either the anterior or posterior vaginal vault without removing the uterus. Some years ago I attempted to do this and was compelled to abandon it by the vagina and to complete the operation by the abdomen.

This combined operation by the vaginal and abdominal routes was the subject of a long discussion at the December meeting of the British Gynecological Society. Dr. Arthur Giles summed up very concisely by saying that the *raison d'être* of the vaginal operation was to obviate the necessity of opening the abdomen, and that there was nothing that was done by the combined method that could not be done by the abdominal alone; consequently it seemed to him that to open the abdomen after beginning an operation through the vagina was practically a confession of failure; it meant that the operator had found himself unable to carry out

his original intention. It was not his experience that abdominal operations for pyosalpinx had a specially high mortality, for it happened that a rather large proportion of his cases of abdominal section had been for pyosalpinx, and so far there had been no death among them. I might add that my own experience agrees with Dr. Giles, as I have often been surprised to see patients recover from the most serious operations for pus tubes when neither the assistant nor myself had thought it hardly possible.

Conservatism in gynecology has been receiving a good deal of attention during the last few months. Up to within a year or two ago it was the custom to remove both tubes and ovaries when even one tube was diseased, even though the other tube and both ovaries were apparently healthy. When this was done in young women the artificial menopause brought on so suddenly was accomplished with great inconveniences—so much so that many of these young women declared that they regretted having had the operation performed. This led us to remove only the tube and ovary on the affected side, and although we occasionally were reproached for not making a complete cure by removing both, mostly in cases of sclerotic ovaries, yet these cases were much fewer than those who complained of the miseries of the premature menopause. More attention was then directed to the matter, and now we frequently leave both ovaries in, even where we have to remove both tubes for suppuration.

Nearly a year ago such a case came under my care—a young lady who was infected by her *fiancé* with gonorrhea, leading to two very large pus tubes. He so regretted his crime that he was anxious to make amends by marrying her, and she begged that I might leave her ovaries. The pus tubes were therefore removed without tying the ovarian artery or otherwise hurting the ovaries except that the adhesions were stripped off them and they were carefully cleaned. This patient made a splendid recovery, and is now very happily married. She menstruates regularly and normally, and has all her womanly feelings and attributes. As I used catgut to tie off the tubes at the corner, I would not be surprised to learn that she had become pregnant. In many other cases I have removed three-quarters of one or both ovaries and a part of one tube with very satisfactory results. As many of these were done during the last few months, it is too soon to expect them to

become pregnant, but there is no reason why this should not occur.

Since beginning this article I have operated on a lady for retroversion with fixation, who was most anxious to have children. I found both tubes closed and imbedded in adhesions, the result of a severe attack of pelvic peritonitis, from which she nearly died eight years ago. Both ovaries and tubes were torn almost to shreds by the denudations, and nearly an hour was spent in patching them up with fine silk, but finally a good tube was left, through which a probe could be passed into the uterus. She is making a remarkably pleasant recovery from the operation, and I have yet hopes of her becoming pregnant.

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INCREASE OF INTRADURAL PRESSURE IN HEAD INJURIES.—W. N. Bullard (*Boston Med. & Surg. Journal*, March 24th) makes the following summary: 1. An abnormal increase in the intradural pressure often occurs as an accompaniment or result of severe head injuries when no large clot exists. 2. This intradural pressure may be in part due to an excess in the amount of subdural fluid. This, however, is, as a rule, not the chief element in intradural pressure, which is principally due to the bulging of the brain itself. 3. The cause of this intradural pressure is apparently a congestion or filling of the intracranial blood-vessels and the result thereof.

GASTRIC LAVAGE AFTER GENERAL ANESTHESIA.—I. P. Gunby (*Medical News*, January 21, 1899) suggests that in operations requiring general anesthesia, a stomach tube be introduced when the anesthesia is stopped, and the stomach washed with one or two quarts of warm water, using about twelve ounces at a time. After employing this measure in fifty cases, the author concludes that it is of great value in preventing nausea. A large stomach tube should be used, and a mouth gag is necessary.

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EDITORIALS.

THE NEW CITY HOSPITAL STAFF.

On February 16th the City Council passed the following ordinance:

SECTION 1. Be it ordained by the Legislative Council of the city of Memphis, That the position of hospital physician, as heretofore established, is hereby abolished. Such abolition is to take effect on March 1st, 1899.

SEC. 2. Be it further ordained, That there is hereby established the office of superintendent of the City Hospital, the incumbent of which office shall be appointed annually by the Legislative Council, upon the nomination of the mayor. He shall receive a salary of \$100 per month. Such superintendent shall be a man of good business capacity, and he shall not be a practicing physician. It shall be his duty to give his entire time and attention to the duties of his office. It shall be his duty to employ nurses and servants, purchase all provisions and materials necessary for the hospital, and to keep accurate account of all purchases and disbursements made, and report same monthly to the Council. He shall have charge of all the employees and property about the said hospital, but he shall at all times be subject to the direction and control of the board of trustees of the hospital. It shall be his duty to faithfully carry out, or cause to be carried out, the treatment of patients as directed by the medical staff hereinafter provided for. He shall collect all moneys due from pay patients, and turn same over to the county trustee every month, and shall make a monthly report of all collections to the Legislative Council. He shall also make full reports of all admissions to the hospital, of all deaths and all convalescents. He shall keep in his office at the hospital a record of each patient admitted, setting forth his or her place of residence, nationality, sex, disease, and such other facts and circumstances as the medical staff may direct. Before entering upon his duties he shall give a bond in the penalty of \$5000, to secure the faithful performance of his duties.

SEC. 3. Be it further ordained, That there shall be appointed by the Legislative Council the medical staff of the City Hospital, to serve two years; said medical staff shall consist of four physicians, four surgeons, two obstetricians, two gynecologists,

two oculists, one pathologist, one neurologist, and one laryngologist; all to serve without compensation. At the first election of the medical staff, one-half of the physicians, one-half of the surgeons, one of the obstetricians, one of the gynecologists, and one of the oculists, shall be elected for one year, and the remainder of the staff for two years, and thereafter all the members of said staff shall be elected for two years.

It shall be the duty of said medical staff to have general control of the sanitary and medical department of said hospital, attend to all patients, and perform all operations at said hospitals. The President of the board of health shall be, *ex-officio*, a member of the medical staff, but if he desires it he shall be excused from active service at the hospital. They shall organize by the election of a president and secretary, and they shall establish all necessary rules and regulations for the treatment of patients and the control of the medical and sanitary departments of the hospital; such rules and regulations to be approved by the hospital trustees. They shall appoint internes at the hospital, not to exceed four, after a competitive examination by the medical staff, and shall assign said internes to their respective duties, and have entire charge of them. The hospital superintendent shall furnish board to said internes when on duty, and also rooms. The Legislative Council shall have the power to remove any member of said staff for neglect of duty, or any other cause the City Council may see fit, and the vacancies shall be filled by the Legislative Council.

Repeated efforts have been made on former occasions to induce the city government to make such a change in the conduct of the hospital, but without avail. The proposition came, to all appearances, from the Council this time, and seems to be as popular with the people as with the profession. The need of a staff at the hospital has been pointed out in a former issue of the *LANCET*, and the advantages of the plan are too obvious to need recital. No doubt the exigencies of the practical application of the new order of things will indicate the advisability of some minor changes in the ordinance, but in the main the ground seems to be well covered, and the scheme throughout is worthy of commendation.

The only objection urged against the change was that it deprived the hospital of a resident medical officer to attend to emergencies. These can be as well managed here, as elsewhere, by the internes; and if the medical officer engages in private practice, he is as apt to be out of the hospital when an emergency arises as is a member of the staff, and could not be found more quickly. In the average accident case requiring immediate surgical attention, the surgeon on duty can be summoned by the time the shock is overcome and the preparations made for operation. All physicians know that in nine cases out of ten immediate medical or surgical attention is only demanded by the state of mind of the patient's friends and family.

The ordinance happily places in the hands of the staff sufficient authority for them to carry out what seems to them to be the best methods in all that pertains to the medical and sanitary conduct of the institution. Unfortunately the terms of office of the members of the staff are short. An office which carries with it the demand for an abundance of hard and skillful work, and no compensation but honor, should be placed apart from political "jobs," to be scrambled for and obtained by all manner of undignified means. We hope to see this part of the ordinance soon amended.

The stride has been rapid from the state of affairs which obtained on March 1st, 1898, to that which will be inaugurated on March 1st, 1899. From old, rotting, infected hotbeds of disease, called by courtesy, wards; from the "one man" idea of control; from a derelict system of nursing administered by ex-patients, uncouth, untrained and incompetent, we pass to a building possessing every facility that modern sanitary science can devise; its business affairs administered by a man trained in business; its medical affairs administered by men trained in all the departments of medicine; its nursing done by low-voiced, gentle, intelligent, clean female nurses. We hope that all the possibilities of the institution may be realized; that a careful system of observation, founded on a proper system of case records, will enable us to publish reports which will reflect credit on Memphis as a medical center.

We repeat, that the change is in the line of progression, and is to be thoroughly commended.

THE GREAT IMPORTANCE OF VACCINATION AT THE PRESENT TIME.

The daily press is calling attention to the appearance of smallpox in many sections of our country. *Public Health Reports*, the official organ of the Marine Hospital Bureau in Washington, records the recent invasion of nineteen States and sixty-three localities in the United States by this disease. The Commissioner of Health in Chicago has just issued a "warning" to the people of that city in which he declares that smallpox is spreading throughout the world to an extent not equaled since 1893. These startling announcements justify us in urging the profession and the people generally of this city and section to give attention at once to the

subject of vaccination, the only safeguard we possess against the approaches of this terrible pestilence. No fact in medicine is better proven than the value of vaccination, in spite of the mouthings of rabid anti-vaccinationists to the contrary. *Every unvaccinated individual should be vaccinated now.*

Recent advances in medical science have led to the establishment of methods, so strictly aseptic, in the preparation of vaccine, that any risk from its use is now reduced to a minimum. The vaccine "points" were a great improvement on previous methods, but were perishable, and in exceptional cases produced trouble. We now have at our command "glycerinated vaccine," which, when prepared by scientific and careful manufacturers, makes us feel secure against the risks of infection. This vaccine is far in advance, in safety and efficiency, of any the world has possessed.

REPORTS OF SOCIETIES.

PROCEEDINGS OF THE MEMPHIS MEDICAL SOCIETY.

STATED MEETING, JANUARY 17, 1899.

DR. B. F. TURNER, President.

Dr. W. B. Rogers read a paper on *Intra-scrotal Enlargements* especially with reference to their diagnosis. He adopted the following anatomical classification :

- I. Enlargement of the cord alone, i. e., from, or including, or surrounding the cord :
 - a. Varicocele.
 - b. Hydrocele of the cord—1. Encysted.
2. Diffused.
 - c. Hernia—1. Enterocoele.
2. Epiplocele.
 - d. Hematocele.
 - e. Spermatocoele.
- II. Enlargement of the testis alone.
 - a. Inflammatory—1. Epididymitis.
2. Orchitis.
 - b. Non-inflammatory—1. Hydrocele. Simple.
Congenital.
Symptomatic.
2. Hematocele.

c. Sarcocoele—Inflammatory (Simple).

Syphilitic.

Tubercular.

Fatty.

Cartilaginous.

Malignant.

III. Enlargement of both cord and testis.

Hernia—1. Enterocoele.

2. Epiplocele.

Under this head will come some of the other enlargements if fully developed.

Diffuse hydrocele of the cord is a collection of serum in the connective tissue. Encysted hydrocele of the cord occurs in the process of the tunica vaginalis.

For the purpose of the diagnosis we may divide these enlargements into the reducible and the irreducible. Of the enlargements of the cord, hernia and varicocoele are reducible. When reduced, pressure will prevent the return of a hernia, but not a varicocoele. Hydrocele and hematocele are irreducible: the former is transparent, the latter opaque. In negroes, where this test is of no value, a hypodermic may be used to make the diagnosis. Fatty tumor of the cord has occurred, but had best be let alone, unless large.

Of the enlargement of the testis alone, only one is reducible, viz., congenital hydrocele. Another division may be made of these enlargements into cystic and solid, the two being readily differentiated by puncture with a hypodermic. In uncomplicated tumors of the testis a diagnosis can generally be made without asking the patient a single question. The diagnostic features of inflammatory enlargements of the testis are sufficiently plain. Of the hydroceles, the simple form is due to a loss of balance in the blood vessels of the parts, leading to an effusion of serum into the tunica vaginalis. Symptomatic hydrocele is due to a pathological condition in the testis. It is important to differentiate these two for therapeutic reasons.

Hematocele is due to traumatic ruptures of the large vessels around the epididymis. It is usually absorbed, but if not it may be laid open and cleaned out.

Of the solid enlargements of the testis, simple sarcocoele can be diagnosed by the history and by exploration. It is a slow inflammatory process, with a deposit of fibrin in the connective tissue of the testicle. It forms a small, hard, painless tumor.

Syphilitic tumors do not get large, and are usually confined to the body of the testicle. Dr. Rogers cited a case in which the enlargement was double and confined to the epididymis, causing impotence. A cure was obtained by the iodides. Syphilitic tumors are painless and of slow growth.

Tuberculosis of the testis begins in the epididymis, usually the head, grows slowly and painlessly, and tends to become cheesy, the skin breaks and a fungous growth results.

Of fatty tumors one case is reported.

Cartilaginous tumors are found in the testis in common with the parotid and mammary glands, and in the testicle are generally associated with malignancy. This tumor is very hard.

Malignant tumors grow rapidly, and, in the case of carcinoma, cause the neighboring lymphatics to be enlarged. Carcinoma is painful, sarcoma is not. Carcinoma is said by a well-known author to be common in the young, but this is not Dr. Rogers' experience. The features which belong to these growths in all localities and which separate them from each other, serve as diagnostic points for malignant tumors of the testis.

Hernia involving cord and testis is generally not difficult to recognize.

Dr. Frank A. Jones has seen many cases of syphilitic sarcocele among the negroes at the East End Dispensary.

Dr. Wm. Krauss has had the opportunity of examining specimens of all sorts of tumors of the testicle, and a recent one submitted to him by Dr. Smythe was found to be a fibro-myoma, probably springing from the muscular tissue of the walls of the blood vessel or of the vas deferens. Another case from the same operator proved to be purely fibrous, of inflammatory origin.

Dr. F. D. Smythe has seen an inflammatory enlargement of the cord quite often from sepsis following the operation for varicocele. In regard to the cases referred to by Dr. Krauss, the fibro-myoma was very large, extending up to the external ring, and had a colloid center. The fibrous enlargement was small and very hard, interfering with sexual intercourse and causing pain in the testis.

Dr. G. G. Buford mentioned a case where the patient rode home on a mule after having the testicle punctured with a hypodermic, and an orchitis was set up, for which he was held responsible. In another patient with a tubercular sarcocele, pain was quite a prominent symptom.

Dr. E. P. Sale called *Dr. Rogers'* attention to the omission of spermatocele (inserted above to make the table complete). This is a small, fluctuating tumor of the cord, containing "seminal seed."

Dr. R. B. Maury reported a case which was looked upon as epididymitis or orchitis. It was of fifteen days duration when he saw it, and containing fluid, was tapped, and the testicle found enlarged. There was no history of venereal disease, but of an effort on the part of the patient to catch himself and avoid a fall, and this was followed by pain in the testis. There was subsequently another slight injury, with re-inflammation of the testicle and its final protrusion and destruction. *Dr. Maury* has seen ovarian pain follow just such an injury (indirect trauma).

Dr. Rogers referred briefly to the treatment of hydrocele. Injections of iodine, tannic acid, etc., cause restoration of the lost balance to the blood vessels. The "open method" of free incision and packing causes obliteration of the sac; carbolic acid causes destruction and inflammation. In a case treated by iodine, carbolic acid, and the "open method," a recurrence was relieved by repeated injections. In reply to a question from *Dr. Williams*, he believed dermoid cysts are rarely met with in the testicle. In reply to a question from *Dr. Sale*, he had not used turpentine as an injection in hydrocele. In reply to a question from *Dr. Moore*, he does not think the injection of carbolic acid is attended by any danger of carbolic acid poisoning. After treatment by injection, some patients remain well four or five years and then the trouble recurs.

Dr. Smythe thinks carbolic acid cures by adhesion.

Dr. Sale has used turpentine and oil in one case by injection, bringing about a cure, but producing mild strangury. It did not cause much pain.

Dr. Krauss said that adhesion between the surfaces of the tunica vaginalis was not necessary for a cure, but only a closure of the openings in the serous membrane.

Dr. F. D. Smythe read a paper entitled, *A Plea Against the Unwarranted Assaults upon the Female Genitalia by Aspirants for Notoriety in the Practice of Obstetrics and Gynecology*. Either through ignorance, desire to do something, or for a fee, practically normal pelvic and peritoneal structures are often attacked with disastrous results. Even when indications are present, operations undertaken by one not qualified to operate utterly fail to relieve the condition,

if indeed they do not make it worse. He spoke specifically against the reckless curetting of puerperal uteri, needless vaginal examinations of virgins, useless removal of tubes and ovaries, improperly done plastic operations, and unnecessary gynecological "tinkering."

Dr. Edwin Williams is a believer in medical as opposed to surgical treatment in the majority of cases, and thinks the pelvic organs in virgins should always be examined by the rectum.

Dr. Alfred Moore spoke of the danger of breaking down, with a curette, the protecting leukocytic wall in the puerperal uterus and permitting septic infection. On the other hand, it is necessary, when the wall is infected, to remove it with the finger or dull curette. It is difficult to differentiate these cases. The uterine contents may be drawn off in a sterile tube, and submitted to bacteriological examination for the purpose of making a diagnosis.

Dr. Jones thinks *Dr. Smythe* is rather "ultra." Much of the trouble lies in the lack of preparation which alleged "specialists" experience.

Dr. Krauss approved of such iconoclasm when it emanates from one qualified to speak *ex cathedra*.

Dr. Buford agreed as to the evils of indiscriminate specialism. The danger of needless operations is based on improper diagnosis.

Dr. E. C. Ellett thinks *Dr. Smythe's* remarks might have a broader application than to any one specialty. Men frequently blossom as specialists after a six-weeks course in a post-graduate school, and sometimes simply drop general practice and take up a specialty without any preparation or special study at all. Such men not only fail to become of any advantage to themselves or their unfortunate patients, but bring discredit upon the profession as a whole, and especially on the specialty which they presume to practice.

Dr. Sale believes in conservatism, but thinks *Dr. Smythe* is too radical in some things. In virgins it sometimes is absolutely necessary to make a vaginal examination. In obstetrics, too, the present "do nothing" plan is often inappropriate.

The President said that every man must at some time do his first operation, particularly in rural districts where it is not possible to always command skilled operators. In obstetrical work he favors frequent examinations under proper precautions.

Dr. Smythe regretted that he had been misunderstood in some

ways, but was pleased at the generally favorable reception of his paper.

STATED MEETING, FEBRUARY 7, 1899.

Dr. Edwin Williams read a paper on *The Diagnostic Significance of Vomiting*. The various local and general diseases of which vomiting may be a result or symptom were enumerated, and briefly, the characteristics of the sort of vomiting associated with them described. When no local cause exists uremia should be thought of. The vomiting of intra-cranial tumor or abscess is not accompanied by much nausea, but is of long standing and associated with headache, usually motor and sensory disturbances, and especially choked disc. The vomiting of meningitis is apt to be severe at first and of an expulsive character. In intestinal obstruction the vomited matter is feculent, and vomiting does not relieve the nausea. Vomiting during the latter part of typhoid fever is suggestive of perforation. In ulcer of the stomach the vomit is bright red blood, while in the hematemesis of cardiac and hepatic disease the blood is dark. In cancer of the stomach it resembles coffee grounds. Hematemesis may be due to vicarious menstruation. Vomiting is sometimes a symptom of hysteria, in which case it produces slight depression, being well borne, as are most hysterical manifestations. Vomiting of pregnancy is common, and the whole therapeutic armamentarium has been suggested for its relief. *Dr. Williams* suggested daily lavage with a warm normal salt solution containing a little cocain and oxalate of cerium. This is to be given early in the morning, and he has seen it do good in some cases. Vomiting in the latter months of pregnancy suggests renal disease. Sea-sickness is a form of vomiting which is probably not to be controlled. A mixture suggested by *Dr. E. M. Holder* was mentioned, containing morphin, cocain and belladonna. Vomiting occurs in exophthalmic goiter. It ushers in various febrile diseases, and is often seen in pelvic diseases. Vomiting is the rule after giving an anesthetic. It may be ameliorated by inhaling vinegar, and in a measure avoided by beginning with chloroform and changing to ether when the patient is anesthetized.

Dr. E. C. Ellett spoke of *Gunby's* suggestion to wash out the stomach after anesthetization to relieve nausea and vomiting. (See page 151.)

Dr. Wm. Krauss said that while cocain is a valuable drug to relieve vomiting, if any *habitué* takes more than his usual dose it is very apt to bring on vomiting.

Dr. G. G. Buford said that the causes of vomiting are either central or peripheral. Some causes act in both ways. In exophthalmic goiter the vomiting is due to an irritation transmitted back to the center in the medulla by way of the recurrent laryngeal and pneumogastric nerves. In narcotism from ether or chloroform or an opiate, metabolism is arrested, and the retention of toxins causes vomiting by their action on the center. Washing the stomach removes some of these toxins and dilutes others in the circulation, aiding their elimination by the kidneys.

Dr. J. H. Venn asked for the modern pathology of sea-sickness, and wanted to know what had become of Dr. Minor's labyrinthine theory.

Dr. E. M. Holder said he had had a good deal of experience with sea-sickness, but did not know its cause or how to relieve it, except to let it wear off. He spoke of Gerster's suggestion to spray the nares with cocain before anesthesia, to relieve nausea and other unpleasant effects.

Dr. Richmond McKinney has seen one case of sea-sickness relieved by Skinner's remedy of atropia and strychnia.

The President thought we should utilize vomiting more as a therapeutic measure in children, in whom many illnesses are due to an overloaded stomach.

Dr. Williams disagreed with Dr. Buford as to the arrest of metabolism during anesthesia, and mentioned sweating as one instance where metabolic activity continues. He regards sea-sickness as an inevitable result of the motion of a vessel in those susceptible to it.

Dr. R. B. Maury made a report of some *Cases from the Gynecologic Clinic at the City Hospital* in January. He had two cases of cystitis of about one year's duration. One of the women had a child six weeks old, and during the latter part of her pregnancy the cystitis was aggravated. In both patients internal and local treatment had been tried without effect. Both women were weak and emaciated, and the puerperal one had a temperature of $103\frac{1}{2}^{\circ}$ and pulse 140, but no disease except that of the bladder and possibly kidney. Both had pain and painful and frequent urination with

bloody purulent urine. In both cystotomy was done, and in both great relief was at once experienced, and in eight or ten days they were practically free from symptoms. The fistula will be left open for a year. We now recognize ureteritis in many of these cases, and to illustrate its importance the case of a young married woman was mentioned, who, four years ago, while under a great nervous strain, neglected to urinate for forty-eight hours. When she attempted to empty the bladder she found it very difficult, and from that time her trouble began. She was urinating hourly, and with much pain; there was pain up along the course of the left ureter; the urine contained a little albumin, pus and epithelial cells, but no evidence of a kidney lesion. The cystoscope showed only slight cystitis. The right ureter was catheterized and found to contain pus. The urine in the bladder from the left ureter also contained pus. A cystotomy was done ten days ago and the bladder washed with a solution of borax, boracic acid and salt. She is now completely relieved.

Emmet proposed a simple slit in the bladder, but Dr. Maury finds the following to give better drainage: Pick up a fold of vaginal wall and excise a strip about one-fourth inch wide down to the mucous membrane of the bladder. Slit the latter on a sound and unite the vaginal and cystic mucous membranes with a continuous catgut suture. This gives an opening which insures good drainage. The medicinal treatment of cystitis is unsatisfactory. Cystotomy yields good results.

A case of retroversion had been operated on. The patient was a neurasthenic virgin, in whom a pessary gave no relief. When the pessary fails there are four operative measures at our disposal—ventro-fixation, suspensio-uteri, folding the vaginal ligaments, and Alexander's operation of shortening the round ligaments. That known as suspensio-uteri is usually the best. The uterus is replaced and held by a pessary, the abdomen opened and two silk sutures passed through the posterior uterine wall near the top of the organ, and then through the peritoneum and subperitoneal fat of the abdominal wall and tied. The peritoneum and fascia are closed by a continuous catgut suture in two layers, and then the skin sutured. Convalescence is usually prompt, and the result good. The adhesions stretch and allow the uterus some mobility, and pregnancy is possible.

The last case was that of a multipara, who conceived in Jan-

uary, 1898. She passed her time in October, and then fetal movement ceased. The patient's health declined, but she was not septic. A diagnosis of ectopic gestation was made by the interne, Dr. Black. The head was low in the pelvis, the enlarged uterus to the right, and the os high and above the pubis. The abdomen was opened, the sac incised and the fetus delivered. The placenta was attached to the sac wall near the right broad ligament, and was bloodless. The sac was tied off and enucleated, and the pelvis packed with gauze to control the venous oozing. For two weeks the pulse was 125-135, temperature 102°-103°, the epigastrium flat, no vomiting, and the patient in good spirits and taking nourishment. On the thirteenth day she contracted a bronchitis, and died on the eighteenth day. In this case it would have been better to have opened the sac low down and drained it, and not to have attempted the ideal operation of its removal.

This is the third case of this character Dr. Maury has seen. In the first there was no sac, and the placenta was attached to the intestines. In the second case the pregnancy was intra-ligamentous. In this the third, there was a distinct pedicle, as one usually sees in ovarian cystoma.

PROGRESS OF MEDICINE.

CONTRIBUTIONS TO THE HISTOLOGY, PHYSIOLOGY AND PATHOLOGY OF THE LIVER, BILE PASSAGES AND BILE.—Gustave Fütterer (*Medicine*, June and July, 1898), had the opportunity of examining microscopic sections of the liver in a case of primary carcinoma of the gall bladder which produced natural injection of the bile passages. The changes consisted of: 1st. Areas of necrosis directly surrounding the bile ducts, due to pressure on the liver tissue. Only a small amount of liver substance, comparatively, was thus injured. 2d. While the peripheral hepatic cells were uninjured, the central portions of the lobules were stained deeply yellow by bile, the liver cells rapidly approaching dissolution or fully destroyed, in other words, a condition of icteric necrosis. 3d. A careful microscopic examination with oil immersion, carried on daily for months, seemed to show that the liver cells of the outer portion of the lobules were apparently normal, while on nearing the necrotic zone

they suddenly displayed changes, dark yellowish-green masses appearing inside of the liver cells and closely around the nucleus, filling the channels which possessed sharply defined margins. These masses consisted of thickened bile retained as a result of the obstruction. He concludes from his very interesting and painstaking observations as follows:

1. The roots of the bile-duct system are inside of the liver cells, as intraprotoplasmic channels, which form complicated networks, and which closely surround the nucleus.

2. An intranuclear system of bile channels communicating with the intraprotoplasmic channels does not seem to exist.

3. The intraprotoplasmic channels are in direct communication with the bile capillaries.

4. Under normal conditions the intraprotoplasmic channels are not visible, and if stagnation of the bile distends them and makes them visible as networks, this happens at the cost of the protoplasm and the life of the cells.

5. While the protoplasm under such conditions perishes very quickly, the form and structure of the nucleus remain intact for a long period.

6. The bile is secreted in the form of minute drops, which first appear around the nucleus.

7. We should now use the terms: bile ducts, bile capillaries, and bile channels.

Photogravures illustrate the paper, and a review of the literature accompanies it. The author's findings accord with those of Nauwerck.

BACTERIOLOGICAL STUDY IN THE ETIOLOGY OF YELLOW FEVER.—P. E. Archinard, assisted by R. E. Woodson and John Archinard (*N.Y. Med. Journal*, Jan. 28, 1899), studied the bacteriology of yellow fever during the epidemic of 1897, and arrived at the following conclusions:

1. In a large proportion of autopsies (thirty-two times in thirty-nine) of yellow fever cases of 1897, in New Orleans, a bacillus was found either in pure state (two times) or in association (thirty times), similar to the Sanarelli bacillus icteroides. This bacillus has some points in common with the coli communis, but differs from it in some of its essential characteristics.

2. In live blood taken from the veins of the elbow, in well-marked cases of yellow fever, we were able to isolate our bacillus four times in five cases.

3. In the exhaled breath mixed up with secretions from the mouth and nose (sometimes bloody) we isolated our bacillus twice in twelve cases.

4. In scrapings of the surface of the body of the sick, principally face, neck and upper part of thorax, we isolated our bacillus two times in every twelve cases.

5. Our bacillus injected intravenously into the rabbit, and subcutaneously into the guinea pig, in large doses, from five to ten cubic centimetres of a bacillus culture, is always fatal, and sometimes very quickly. In smaller doses (one to two cubic centimeters) the animals are made sick, but generally recover. The animals that die show characteristic lesions of the liver, kidney and stomach. Cultures from these organs give pure growths of the inoculated bacillus.

6. Our bacillus is identical in almost every respect with Sanarelli's bacillus icteroides obtained from himself and from Dr. Sternberg, but differs somewhat in cultural aspects from Sanarelli's description of his bacillus.

7. The blood of yellow fever cases or of recent convalescents from this disease agglutinates the bacillus icteroides of Sanarelli, and also our bacillus, in over eighty per cent. of the cases, in the proportion of one part of serum for forty of culture within one hour. In less than twenty per cent. the reaction does not take place.

8. The blood of typhoid and dengue with eruption, and malarial fever, when properly diluted, one in forty, does not agglutinate the bacillus icteroides or our bacillus, except in exceptional instances.

9. The blood from a number of diseases other than yellow fever when properly diluted, one in forty, does not react on the bacillus icteroides or our bacillus.

10. Normal blood, properly diluted, one in forty, does not agglutinate the bacillus icteroides or our bacillus.

11. The blood of persons who have had yellow fever seems to retain its agglutinative power for a number of years. The great majority of the cases tested by us who had had yellow fever in 1878 gave the reaction. Those who had had yellow fever previous to 1878 gave us a blood which possessed no agglutinative power with bacillus icteroides or our bacillus.

THE MANAGEMENT OF PATIENTS BEFORE AND AFTER LAPAROTOMY. Frederick Holme Wiggin (*Medical Record*, Jan. 22, 1899) calls attention to the following points:

1. Importance, where possible, of prolonged preparatory treatment.
2. Importance, during this period, of thoroughly cleansing the intestines by cathartics and enemata.
3. Importance of record of temperature, pulse, respiration and urine for several days previous to operation.
4. Necessity of arranging for operation a few days after menstrual period, and cleansing vagina even when abdominal route is used.
5. Administer small amount peptonized food (one ounce) two hours before anesthetic, to lessen tendency to nausea.
6. Necessity of experienced anesthetist, and as small an amount of anesthetic as possible.
7. Necessity, during operation, of protecting patient's body by blankets and clothing.
8. Advantage of using stimulation before heart has become too much exhausted, and of intravenous saline injections before radial pulse is extinct.
9. Leaving in abdominal cavity, after irrigation, a quantity of hot saline solution to stimulate patient, prevent adhesions, and lessen danger of sepsis.
10. Necessity of making patient comfortable by changing position during first two days of convalescence and by use of rectal tube.
11. Necessity of early administration of food in reasonable quantities and at proper intervals.
12. Necessity of withholding stimulating enemata after operations in which extensive and firm pelvic adhesions have been broken up.
13. Necessity for deliberation as to the wisdom of reopening cavity in a case of supposed concealed hemorrhage.
14. Importance of washing out stomach as soon as diagnosis of intestinal paresis is made, and of the persistent use of saline cathartics till bowels move.
15. Importance of not administering cathartics too early or in too large doses where cases are pursuing normal course.

REMARKS ON THE RADICAL CURE OF HERNIA.—Wm. J. Mayo (*Annals of Surgery*, Jan., 1899) makes a number of important observations.

1. Suppuration, by substituting weak scar tissue for primary union, is the most frequent cause of relapse.

2. By using sterile instruments constantly in place of the fingers in manipulating the tissues, the chances of infection are reduced.

3. The prolonged use of green soap, bichloride, and scrubbing, lessens the vitality of the skin and prepares the way for infection by the white-skin germ.

4. The avoidance of tension in suturing the skin is of great importance in avoiding suppuration.

5. Valuable time and great ingenuity have been wasted in disposing of the peritoneum. Simply getting it out of the way is all that is necessary.

6. Dividing the necessary scar tissue into different planes, and having each line of scar tissue backed by sound tissue, is essential. This is accomplished by the Bassini operation for inguinal hernia.

7. Lucas-Championnière is quoted as having observed that although nearly all cases operated upon for inguinal hernia will show some impulse on coughing, this does not necessarily mean that relapse is taking place.

8. Bassini's operation for inguinal hernia is the best; Halstead's next. The advantage of Bassini's is that the scar tissue is in different planes, while in Halstead's the scar tissue is in one plane from within out. The silver wire in Halstead's at times causes tissue atrophy, and necessitates its removal.

9. Ordinary hernia cases are kept in bed three weeks, and no mechanical support is used afterward.

BACTERIAL DISSEMINATION AND ELIMINATION.—Fütterer (*Medicine*, July, 1898), in an article entitled, *How Soon do Bacteria which Enter the Portal Vein Become Disseminated Throughout the System, and When Does Their Elimination Commence?* tells of several experiments made to answer this question. Under the most scrupulous precautions dogs were given injections of bacillus prodigiosus and bacillus pyocyaneus, with physiological salt solution, into the portal vein. At intervals an assistant, who was not contaminated, would

remove blood from the previously exposed jugular vein and plant it upon agar agar. The experiments showed that the injected microörganisms had made their way from the portal vein to the jugular vein in one minute, and from the enormous quantity of prodigious present he concluded that the bacteria had reached the jugular vein in somewhat less than one minute. At the end of thirty minutes inoculations no longer gave results. To eliminate the possibility of absorption by the peritoneum from the drop exuding at the puncture into the portal vein, animals were injected with larger quantities in the peritoneal cavity, with the result that blood specimens from the jugular vein had given no cultures at the end of fifteen minutes. The canulized common bile duct and the canulized ureter were tapped at intervals to answer the second question in the caption. It was found that within two minutes after the injection cultures appeared in both.

The conclusion is, that the elimination of microörganisms which have entered the portal vein is inaugurated at once by the kidneys and the liver. The practical value of the article is in reference to bacterial absorption from intestinal occlusion, even though no lesions exist.

FISTULA IN ANO.—According to Cooke (*Medical News*) the following important points should be observed:

1. A careful physical examination of the lungs, as well as of the entire rectum, is to be made in every case.
2. Pulmonary tuberculosis is not necessarily a contra-indication.
3. Do not put down the knife until certain that every sinus has been divided.
4. Remove all diseased tissue. Large wounds are not to be feared.
5. Caution—The sphincter is to be divided only once and at right angles.
6. Special attention is to be given to the mucous opening.
7. Invasion of the perineum must be avoided, especially in females.
8. Systematic antisepsis is necessary if good results are desired.
9. Care and patience are required in the after-treatment. Dressings are not to be left to the family nurse.
10. In the after-treatment two warnings are to be heeded—com-

plaints of unusual pain by the patient and increase of the discharge. Either of these may mean the formation of another abscess.

11. Hemorrhage and incontinence of feces are the chief danger. Both are amenable to treatment and should not deter from operation.

VERTIGO, ESPECIALLY AS RELATED TO NASAL DISEASES.—Stein (*Phila. Med. Journal*, Jan. 7, 1899) reports a case of vertigo of nasal origin in a man of 49. He had from one to three attacks a day. Other causes being carefully excluded, a hypertrophied middle turbinal was removed, and the inferior turbinal cauterized. There was complete cessation of the vertigo from the time of the operation.

BOOK REVIEWS.

Any medical book can be obtained through the Lancet at publisher's prices, postage free. Terms cash. The usual discounts are allowed.

Self-Examinations of Medical Students. Second edition, 189 pages. Philadelphia: P. Blakiston's Son & Co., 1899. Price, 10 cents.

This little book contains 3000 questions on different medical subjects, with references to books wherein the answers may be found. We can conceive that it is of some value to a student as a guide to the review of a subject.

An American Textbook of Diseases of the Eye, Ear, Nose and Throat. Edited by G. E. DeSchweinitz, A.M., M.D., Professor of Ophthalmology in the Jefferson Medical College, Philadelphia, etc., and B. Alex. Randall, A.M., M.D., PH.D., Clinical Professor of Diseases of the Ear in the University of Pennsylvania, etc. Illustrated with 766 engravings, 59 of them in colors. pp. 1251. Philadelphia: W. B. Saunders. Price, cloth, \$7; sheep or half morocco, \$8.

The habit of associating diseases of the eye, ear, nose and throat in practice is the reason why they are all included in a single volume in this latest addition to Mr. Saunders' excellent series of "American Textbooks." This arrangement precludes any extensive treatment of a single subject, the matter being put in a direct and practical way, the way, in fact, in which the practitioner likes to find facts put down when he consults textbooks. We do not mean to imply that any subject is slighted, for the reverse is true. The list of authors comprises sixty of the best known names in ophthalmology and oto-laryngology, and it is especially gratifying to note the recognition accorded to the West. The names of Wood, Würdemann, Hopkins, Allport, Holmes, Casselberry, and others appear, though we regret to note that no Southern names, except two from Charleston, are to be found.

In the limits of a short review details cannot be entered into. The distinguished editors have built a work in keeping with what was to be expected of them, and the publisher has carried out the typographical work and illustrating in a highly satisfactory manner. Especial attention is called to the colored plates illustrating injuries and diseases of the drumhead. We predict a wide popularity for this deserving book.

The American Year Book of Medicine and Surgery. Being a yearly digest of scientific progress and authoritative opinion in all branches of medicine and surgery. Drawn from journals, monographs and textbooks of the leading American and foreign authors and investigators. Under the general editorial charge of Geo. M. Gould, M.D. pp. 1102. Illustrated. Philadelphia: W. B. Saunders. Price, cloth, \$6.50; sheep or half morocco, \$7.50.

The Year Book for 1899 comes with the prestige of a good reputation, established by its predecessors. The value of such a publication is very great, since we have, in a single volume, all that has contributed to the progress of medicine during the previous year, with references to the original in case a more careful examination of it is wished. The twenty-eight collaborators have carefully done the work of their several departments, each of which is preceded by a brief review, indicating on what lines progress has been made in that department. The typographical work is of the usual excellence of Mr. Saunders' books, and the volume, with that of previous year books, is a most valuable one for the library of the physician who reads.

Christian Science, a Sociological Study. By Charles A. L. Reed, A.M., M.D., Cincinnati: McClelland & Co.

This pamphlet is an address delivered before the Northwest Ohio Medical Association, and published at the society's request. While there is nothing very new in the line of argument adopted, the subject is well covered. Since those who adopt this and similar fads are religious enthusiasts of a type which borders on fanaticism, it is doubtful if argument can reach them, though we have no right to stand idly by and see them practice a branch of the healing art in defiance of the requirements of the law, and to commit, at least manslaughter, under the guise of a religious observance.

A Textbook of Mechano-Therapy. (Massage and Medical Gymnastics.) By Alex. V. Grafstrom, B.Sc., M.D., Late Lieutenant in the Royal Swedish Army; Late House Physician, City Hospital, Blackwell's Island, N. Y. With 11 Pen and Ink Sketches by the Author. Philadelphia: W. B. Saunders. Price, \$1.

In his preface the author states that he has endeavored to present the subject of Mechano-Therapy in a condensed form and in a rational and popular way. In this he has succeeded. There are larger works on the subject which could be read with more profit, but a good book of this nature is a necessity at the present day. At the outset the author carefully distinguishes between mechano-therapy and educational gymnastics, or physical education, and this distinction is intelligently kept before the student throughout the entire book. After giving the classification of and definition for the different movements, the physiology of movement is briefly but well set forth. This chapter is extremely interesting. The indications for mechano-therapy in general and special diseases follow as a natural sequence; and since the book is written by a physician and from a physician's standpoint, it has not been narrowed by the often

unhealthy claims of the masseur. The subject is a much-neglected one, especially in this section of the country; and as we consider the book a valuable addition to any medical library, we take pleasure in recommending it.

BOOKS AND PAMPHLETS RECEIVED.

Christian Science—A Sociological Study. By Chas. A. L. Reed, A.M., M.D. McClellan & Co., Cincinnati, O., 1898.

Self-Examinations for Medical Students. Second edition. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut St., 1899.

The American Yearbook of Medicine and Surgery. By Geo. M. Gould, M.D. Philadelphia: W. B. Saunders, 925 Walnut St., 1899.

Diseases of the Eye. By G. E. DeSchweinitz, A.M., M.D. With 255 illustrations and 2 chromo-lithographic plates. Philadelphia: W. B. Saunders, 1899.

An American Textbook of Diseases of the Eye, Ear, Nose and Throat. By G. E. DeSchweinitz, A.M., M.D., and B. Alex. Randall, M.A., M.D., PH.D., Philadelphia. Illustrated with 766 engravings, 59 of them in colors. Philadelphia: W. B. Saunders, 1899.

Infection After Abdominal Operations and its Treatment. By Hunter Robb, M.D., Cleveland, O. (Read before the Cleveland Medical Society, June 10, 1898.)

The Use of Formaldehyde in Tubercular Laryngitis. By Thos. J. Gallaher, A.M., M.D., Denver, Col. (Read before the Section of Laryngology and Otology, American Medical Association, held in Denver, June 7, 1898.)

A Reliable Technique for the Repair of Complete Lacerations of the Perineum. By Barton Cooke Hirst, M.D., Philadelphia. (Reprinted from *University Medical Magazine*, Philadelphia, January, 1899.)

Cylindrical Transposition. By Norburne B. Jenkins, M.D., Knoxville, Tenn. (Reprinted from *Ophthalmic Record*, January, 1899.)

The Influence of Extirpation of the Ovaries Upon Structural Changes in the Uterus. By Hunter Robb, M.D., Cleveland, O. (Reprinted from *Cleveland Medical Gazette*, May, 1898.)

A Case of Punctured Wound of the Skull, with Remarks on the Importance of Operative Interference in Injuries of this Nature. By E. M. Holder., B.Sc., M.D. (Reprinted from the *Memphis Medical Monthly*, July, 1897.)

Irrigation with Salt Solution and Other Fluids in Surgical Practice. By Hunter Robb, M.D., Cleveland, O. (Reprinted from the *American Journal of Obstetrics*, 1898.)

A Case of Endothelioma Lymphangiomatodes of the Cervix Uteri. By Hunter Robb, M.D., Cleveland, O. (Reprinted from the *Transactions of American Gynecological Society*, 1898.)

The Immediate and Remote Results of Seventy-One Suspensio-Uteri Operations. By W. L. Burrage, M.D., Boston. (Reprinted from *Gynecological Transactions*, vol. xxiii, 1898.)

NEWS AND NOTES.

DR. JULIAN CHISOLM, a well-known oculist of Baltimore, has retired from practice.

Dr. W. H. NANCE, of Gunnison, Miss., died in this city January 26th, from an overdose of morphin.

MR. W. C. DAVIS, formerly Chief of Police, has been elected Superintendent of the City Hospital.

DR. SAMUEL SOUTHALL and MISS HELEN EDMONSON, both of Whitehaven, were married on February 21st.

DR. A. A. ESHNER has retired from the position of assistant editor of the *Philadelphia Medical Journal*.

DR. HEBER JONES has been unanimously reëlected President of the Board of Health for the ensuing year.

DR. H. V. WÜRDEMAN, of Milwaukee, succeeds Dr. Casey Wood as editor-in-chief of the *Annals of Ophthalmology*.

DR. GEO. H. SIMMONS, of Lincoln, Neb., has been elected editor of the *Journal of the American Medical Association*.

DR. GEO. H. ROHÉ, of Baltimore, died suddenly in New Orleans on February 6th. He was in charge of the Sykesville (Md.) Insane Asylum.

MR. HARRY FRANSIOLI, of this city, a student of medicine at the University of Pennsylvania, died of consumption at El Paso, Tex., on February 5th.

DR. WM. CATTO, of Decatur, Ill., who contributes an article to this issue of the LANCET, was killed by the cars at Moaweequa, Ill., on January 29th.

THE Philadelphia County Medical Society will use its influence to allow medical students access to the Municipal Hospital for the study of contagious diseases.

DR. D. M. HALL, captain and surgeon in the Second Tennessee Regiment, having been mustered out, has returned to the city and will resume practice with Dr. B. G. Henning.

DR. N. F. RAINES had \$75 stolen from his room at the Arlington Hotel on February 5th. The matter was reported to the police, the robber arrested within two hours, and \$70 recovered.

THE engagement of Dr. L. L. Meyer to Miss Goldsmith is announced. Dr. Meyer is a graduate of Bellevue Hospital Medical College, and a nephew of Dr. M. B. Herman of the LANCET.

MR. C. B. KIRKLAND, formerly with Parke, Davis & Co., has associated himself with J. C. Ayer & Co., of Lowell, Mass. The change is not likely to raise Mr. Kirkland in the esteem of the medical profession.

THE Board of Health has inoculated two calves with vaccine virus, with the intention of furnishing its own material for vaccination in future. The plan will probably save the department about \$500 a year.

Two cases of smallpox, both in negroes, developed in the City Hospital on February 21st. They were removed and the wards placed in charge of an interne and three nurses, and isolated. The interne who willingly assumed this very unpleasant, if not dangerous, duty, is Dr. Rhodes.

THE "narcotic bill" advocated by the Tri-State Medical Society was killed in the Judiciary Committee of the State Legislature. At

the same time we note that Arkansas, whom we are accustomed to think a little behind us in progress, has declared cocain a poison and passed a bill regulating its sale.

IN the *Philadelphia Medical Journal* Prize Competition, which closed on January 1, 1899, the prize in pathology was awarded to Dr. A. O. J. Kelly, a contributor to the LANCET, for his essay on "The Histology and Pathogenesis of Certain Tumors of the Parotid Region, with Particular Reference to Those of Endothelial Origin."

WE would respectfully call the attention of the *Journal of the American Medical Association* to the fact that the author of a recent article therein on "Electrolysis in Prostatic Disorders" was a man who, while a resident of this city, was expelled from the medical society for flagrant advertising, and was barred from consultation with reputable physicians.

DR. QUITMAN KOHNKE, Chairman of the New Orleans Board of Health, has entered suit for \$25,000 damages against Dr. Jno. C. McKowen of New Orleans, on account of an article published by the latter in the *Baton Rouge Advocate* of January 17th, charging the Board with suppressing information concerning yellow fever and encouraging physicians not to report such cases. The action of the Mississippi Board, noted elsewhere, is based on this article, hence this suit.

THE Mississippi State Board of Health, at its meeting held February 4th, passed resolutions condemning the manner in which the Louisiana and New Orleans boards conceal the presence of yellow fever. They disapprove of Dr. Souchon's term, "yellowoid," and declare the disease known by that name to be true, though mild, yellow fever. They further demand from the Louisiana and New Orleans authorities the privilege of having their representative see all so-called "suspicious cases," and to have at all times the right to inspect their hospitals.

THE fourth annual meeting of the Western Ophthalmologic and Oto-Laryngologic Association was held in New Orleans on February 10th and 11th. The meeting was small, probably due to the inclement weather. The following officers were elected: President, Dr. Wm. Scheppegrell, New Orleans; First Vice-President, Dr. M.

A. Goldstein, St. Louis; Second Vice-President, Dr. H. V. Würdemann, Milwaukee; Third Vice-President, Dr. E. C. Ellett, Memphis; Secretary, Dr. Fayette C. Ewing, St. Louis; Treasurer, Dr. W. L. Dayton, Lincoln, Neb. The next meeting will be held in St. Louis.

ON December 31st the following gentlemen, formerly Professors in the Kentucky School of Medicine, were elected full Professors in the Kentucky University of their respective departments:

Professor of Principles and Practice of Medicine and Clinical Medicine—Prof. J. B. Marvin, B.S., M.D., LL.D.

Professor of Surgery and Clinical Surgery—Prof. J. M. Holloway, A.M., M.D.

Professor of Anatomy—Prof. C. W. Kelly, c.m., M.D.

Professor of Chemistry and Diseases of Children—Prof. S. E. Woody, A.M., M.D.

NOTICE.—The Board of Health has issued the following circular letter:

To make our records complete for the year 1899, we will need your assistance. I therefore desire to call your attention to Section 252, page 200, of the City Ordinances of 1898, in regard to reporting births:

“ * * * That every physician, midwife, or other person who shall assist or advise at any birth shall make a full report of the same to the Board of Health, signed by him or herself, giving place, ward, street and number of such birth, and the sex and color of every child born, and the name and residence of the parents.”

Also Section 236, page 196, in regard to reporting contagious diseases:

“ Every physician shall immediately report to the Board of Health, in person or in writing, any person he may attend or be called to see, sick with, or who he has reason to suspect has either of the following named diseases: Cholera, Smallpox, Yellow Fever, Scarlet Fever, Diphtheria, Pseudo-Membranous Croup, Varicella or Chickenpox, giving his or her name, color, age and place of residence.”

On and after this date these ordinances will cover the lately annexed territory, as well as the old city limits. I would respectfully beg that you send me a report of all births which have occurred in your practice since January 1, 1899, within the annexed district. Birth blanks can be obtained at this office on application.

Yours very respectfully,

January 26th, 1899.

MARCUS HAASE, M.D., Secretary.

AT the June meeting of the American Medical Association at Columbus, Ohio, in addition to their regular programs, the Section on Ophthalmology and that of Laryngology and Otology will devote the morning of the second day, June 8th, to a joint meeting, under the chairmanship of Dr. Casey A. Wood, of Chicago, and Dr. Emil Mayer, of New York. The subject for discussion

will be, "The Relation of Ocular Diseases to Affections of the Nose and Neighboring Cavities." Four papers will be read on this subject, by invitation, as follows :

1. Dr. Charles Stedman Bull, of New York, on "Some Points in the Symptomatology, Pathology and Treatment of the Sinuses Adjacent and Accessory to the Orbit."

2. Dr. D. Bryson Delavan, of New York, on "Nasal Stenoses in Their Relation to the Ocular Disturbances."

3. Dr. Joseph A. White, of Richmond, Va., on "Eye Troubles Attributable to Naso-Pharyngeal and Aural Disturbances."

4. Dr. J. H. Bryan, of Washington, D. C., on "Diseases of the Accessory Sinuses in Their Relation to Diseases of the Eye."

5. General Discussion on the main question.

THE following Staff of the City Hospital was appointed on February 25th :

Physicians—Dr. M. Goltman, for two years.

Dr. E. E. Haynes, for one year.

Dr. S. J. Cooper, for one year.

Dr. F. S. Raymond, for two years.

Dr. B. G. Henning, for two years.

Dr. J. H. Reilly, for one year.

Surgeons—Dr. M. B. Herman, for one year.

Dr. Jno. M. Maury, for one year.

Dr. E. A. Neely, for two years.

Dr. W. B. Rogers, for two years.

Dr. F. D. Smythe, for one year.

Dr. E. M. Holder, for two years.

Obstetricians—Dr. Alexander Erskine, for one year.

Dr. E. P. Sale, for two years.

Gynecologists—Dr. R. B. Maury, for one year.

Dr. W. W. Taylor, for two years.

Oculists—Dr. E. C. Ellett, for one year.

Dr. A. G. Sinclair, for two years.

Laryngologist—Dr. Kennedy Jones, for two years.

Neurologist—Dr. B. F. Turner, for two years.

Pathologist—Dr. L. L. Meyer, for two years.

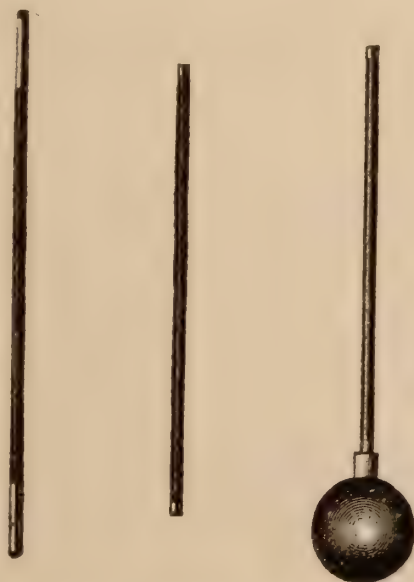
The Staff has organized and elected Dr. Heber Jones President, and Dr. E. C. Ellett Secretary.

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WE ARE NOW PREPARED TO SUPPLY GLYCERINATED VACCINE SECURELY SEALED IN INDIVIDUAL GLASS TUBES.

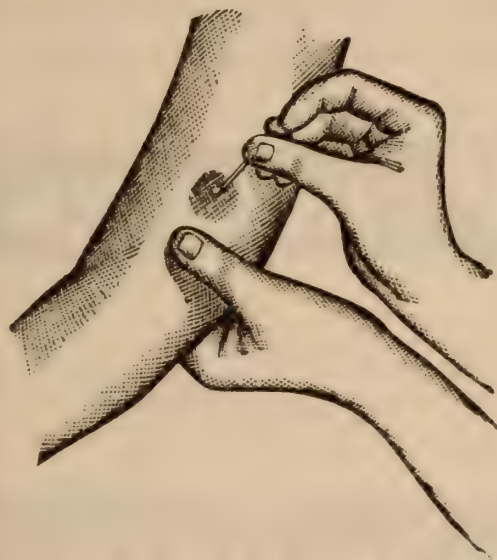
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Tube with Rubber Bulb attached.



Applying the Vaccine to patient's arm.

Our GLYCERINATED VACCINE is marketed in capillary tubes, each holding sufficient for one vaccination. As soon as the patient is ready to receive the VACCINE, the operator will break off each end of the tube and expel the contents by means of a small rubber bulb which is furnished with each package of ten tubes. The VACCINE is applied directly from the tube to the patient's arm (or whatever portion of the body is chosen as the site of inoculation).

GLYCERINATED VACCINE is **aseptic vaccine**—the pulp of cowpox vesicles mixed with pure glycerin for the destruction of the comparatively few streptococci or other bacteria likely to be present despite the most careful manipulation of the vaccine-producing animal. Glycerin is not a powerful germicide; but it is powerful enough, as we have abundantly demonstrated in our Bacteriological Laboratory, to render germ-free in a short time the vaccine to which in our hands it is applied. Moreover, it is **perfectly harmless** when applied to the abraded skin in connection with the prophylactic use of the vaccine.

To those who are in the least acquainted with our methods of serum production it will be unnecessary for us to state that in the elaboration of vaccine we guard every step with the most uncompromising scrutiny and assure the **purity of the product** by the most rigid antiseptic and aseptic measures. The heifers before being vaccinated are tested with tuberculin. As an additional safeguard the animals are slaughtered as soon as the vaccine is collected, and a careful inspection of the carcass is made by an experienced meat-inspector; if any evidences of disease are found the vaccine is destroyed.

“Points” are Unreliable and Unsafe.

It is a noteworthy fact that manufacturers of vaccine have generally ignored those rules of rigid surgical asepsis which have been recognized for years as absolutely necessary when the physician desires to make a break in the healthy skin of his patient. As a result, septic infection after vaccination has been commonly met with in general practise. The object of the product now offered by us is to produce infection with *pure* cowpox and to avoid the sores and sloughs which naturally follow the use of vaccine material carelessly prepared and often loaded with the organisms of ordinary pus.

In 1894 the Columbus Medical Laboratory of Chicago made a careful examination of eleven different varieties of vaccine “points,” made by as many manufacturers, and only one was found to be free from bacteria and blood-cells. Of the rest, several were decidedly unfit for use.

But, notwithstanding all our aseptic methods, vaccine, like other moist physiological products no matter how carefully prepared and protected, is liable to deteriorate after a certain period of time. For this reason we affix the **date of shipment** to each package, and authorize the drug trade to give fresh VACCINE in exchange for any quantity of unused and deteriorated virus purchased from us in good faith.

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Branches in New York, Kansas City, Baltimore, and New Orleans.

CLINICAL NOTES.

NERVOUS HEADACHE.—There is a constantly recurring form of nervous headache to which females are particularly liable. It suddenly seizes upon its victim without premonitory symptoms, is apparently due to no appreciable cause and continues for hours, finally leaving the sufferer exhausted physically and mentally. Imperfect excretions, some degree of auto-intoxication, disturbed secretion and perverted functions are responsible for this condition. On account of its anodyne properties and its strong eliminative action Tongaline is particularly indicated in nervous headache. Tongaline will not only give prompt relief but it eventually overcomes all tendency to the trouble.

E. B. TREAT & Co.'s International Medical Annual for 1899 is now in press. The appearance of this ready reference book is awaited as usual with much interest.

THE USES AND EFFECTS OF GUDE'S MANGANIFEROUS IRON PEPTONE. Dr. Julius Heitzmann, Vienna, says: When Hannon pointed out the high significance of manganese, as well as of iron, with regard to absorption of oxygen by the blood, and when this discovery was confirmed by Ruehle, efforts were made to produce, by combination of both remedies, preparations which would best fulfill the therapeutic indications in all directions. After a series of experiments made in this direction I found in the preparation discovered by Dr. A. Gude (Pepto-Mangan—Gude), a remedy which fulfilled the above requisites, and can recommend it most heartily. The diet, during

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The Safest, Most Agreeable and
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An Important Advance in Gonorrhea Therapeutics.

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A Scientific Food, Tonic and
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THE MEMPHIS LANCET.

VOLUME II.

APRIL, 1899.

No. 4

ORIGINAL ARTICLES.

ERYSIPELAS.

BY AUGUSTUS A. ESHNER, M.D.,
PHILADELPHIA, PA.

Professor of Clinical Medicine in the Philadelphia Polyclinic; Physician
to the Philadelphia Hospital ; etc.

Erysipelas is a specific, self-limited affection, characterized by a more or less circumscribed inflammation of the skin, and by constitutional manifestations of varying extent and intensity. It is specific by reason of its dependence upon the activity of a distinct and special agent, the streptococcus first isolated by Koch and first cultivated on artificial media by Fehleisen, but which the weight of evidence now points to being identical with the streptococcus pyogenes of Rosenbach. The disease is self-limited, for if left to itself, untreated, it will, under ordinary circumstances, terminate in recovery.

The causative agent probably enters the system through a wound or abrasion or other defect of mucous or cutaneous surface, setting up a peculiar inflammatory process at the site of entrance. The existence of a so-called idiopathic erysipelas is scarcely any longer maintained. Trousseau is made authority for the statement that erysipelas often starts from the mucous membrane of the palate and fauces, reaching the skin through the nares. At any rate, there is likely, in most cases, to be some degree of inflammation of the fauces.

Being due to the activity of a specific agent capable of indefinite multiplication and propagation, erysipelas is infectious; and as transmission can take place through the mediation of the atmosphere, it is also contagious. The disease has not been uncommon in the past in ill-conducted and badly-ventilated hospitals, and epidemics have been known to occur—a contingency that can be averted by careful segregation and close attention to hygienic details.

Young adults and those of middle age are most commonly affected. One attack does not afford exemption from subsequent attack, but seems rather to predispose to its occurrence. A family predisposition has been thought to exist in some instances. Women are believed to be more susceptible to the disease than men. The affection is most prevalent in the spring of the year. The period of incubation has been placed by Watson at seven days, and by Murchison at three or four. Prodromal manifestations are, as a rule, wanting.

The disease usually sets in suddenly, with a chill, which may be slight or severe. There may also be nausea, vomiting and convulsions. The temperature rises rapidly to the neighborhood of 103° or 104° , with corresponding acceleration of pulse and respiration. Soon there is noticed a spot of redness at some point on the surface of the body, exceedingly often on the face, and usually at the bridge of the nose, sometimes at the lobe of the ear, which becomes the seat of burning pain, and from this point the inflammation is prone to spread. The reddened area becomes swollen and elevated above the level of the adjacent surface, from which it is separated by a sharp line of induration. It is itself tense, shining and brawny, and it may become the seat of blebs. There may be enlargement of neighboring lymphatic glands, which, it has been said, do not undergo suppuration. In one case that came under my observation, however, multiple abscesses formed on the head in the tissues of the scalp, and in another, fatal, case suppuration and gangrene of an eyelid occurred. As the inflammatory process extends the temperature rises. The swelling increases until the entire face may be puffed up beyond recognition, and the eyes be closed. It has been pointed out that the chin usually escapes.

The fastigium of the disease is reached within the first two or three days, when the temperature may attain a height of 105° or

106°. Albumin is almost invariably present in the urine at some stage of the disease if it attains any considerable degree of severity. According to Fagge tube-casts and blood may also be found, an observation with which I am inclined to concur, although Strümpell states that the occurrence of nephritis is exceptional. In any event, there would appear to be some relation between disease of the kidneys and erysipelas, perhaps dependent upon defective elimination of noxious matters on the part of the renal organs. Sufferers from nephritis appear especially predisposed to recurrences of erysipelas. Delirium may occur, in rare instances, from extension of the inflammatory process to the intracranial structures; oftener, however, from the circulation in the blood of the toxic products of the vital activity of the streptococci at their site of localization. The number of colorless blood corpuscles is increased.

The duration of the disease is, ordinarily, from five to seven or ten days. Wandering erysipelas, however, may last for a much longer time, even for weeks and months, the inflammatory process moving from place to place, or disappearing from one to appear in another part of the body. I have observed one case in which the symptoms persisted for ten months, and another in which they existed for three months. These will be made the subject of future report. Relapses are prone to occur, but these may often be prevented by observance of appropriate precautions. It has been stated that defervescence is attended with a critical discharge, but this has not been verified in the cases that have come under my observation. The temperature range is, at times, a wide one. In elderly persons the temperature is prone to pursue an atypical course, and there may be little or no pyrexia. In fatal cases there is likely to be an ante-mortem rise in temperature, and there may be a post-mortem rise.

As convalescence sets in, or rather as the inflammatory lesion disappears, desquamation takes place. The superficial layer of the skin of the affected area peels off and the epidermis soon returns to its normal condition. Repeated attacks may, however, be followed by thickening or induration of the skin and subcutaneous tissues, giving rise to an appearance quite like that seen in scleroderma and simulating that of myxedema.

Bronchitis, pleuritis, pericarditis and pneumonia are occasionally complications. Wilks has reported two cases in which fatal

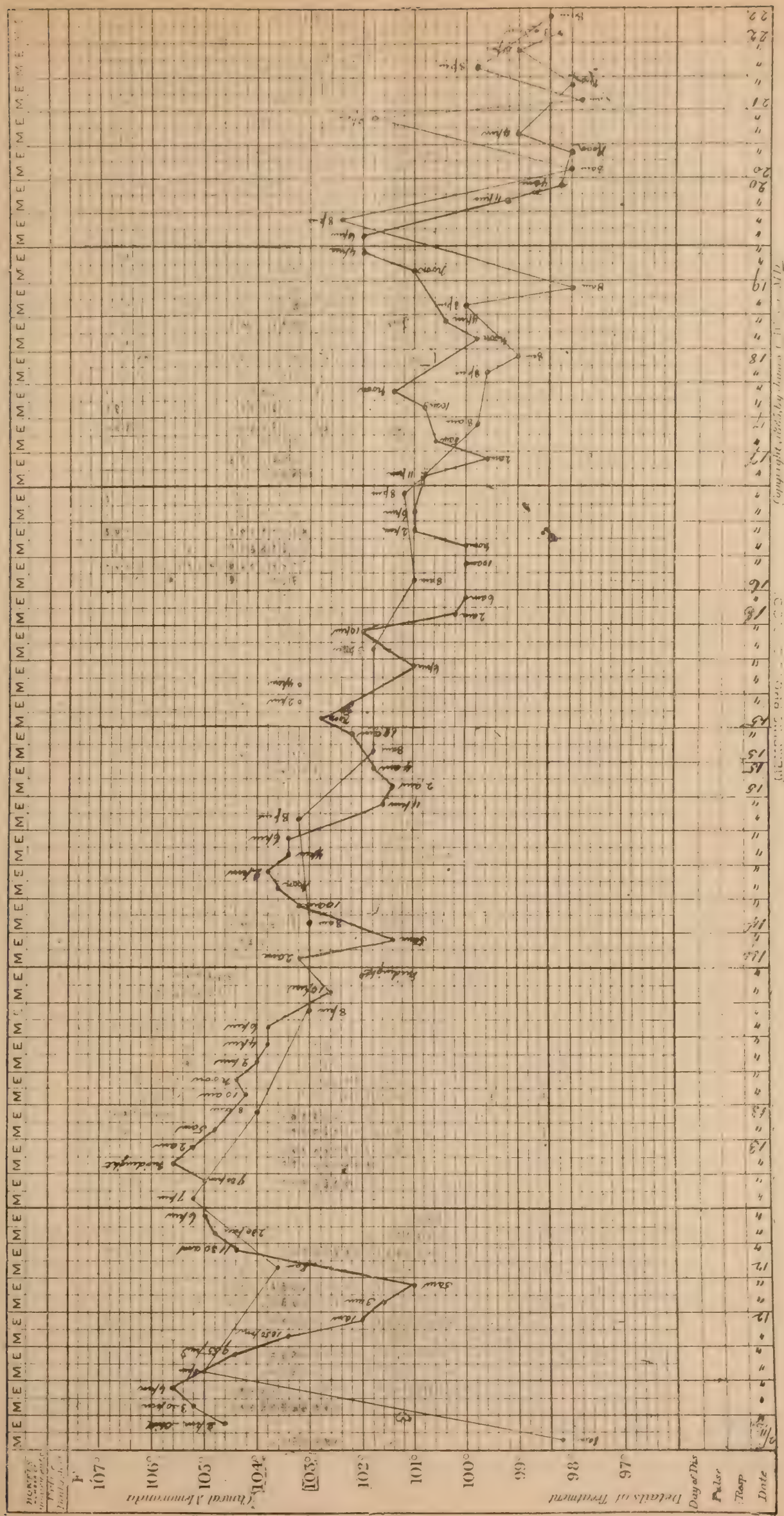
peritonitis occurred in the train of an erysipelatous inflammation of the abdominal wall. Other cases are reported in which ulcers and intense congestion were found in the large and small intestines. Nephritis is a not uncommon sequel. In a case of erysipelas, complicated by gonorrheal synovitis, I have observed thrombosis of both femoral veins.

An apparent antagonism has been pointed out as existing between erysipelas and a number of other affections. Thus, tuberculosis, lupus, sarcoma and eczema have been reported as disappearing after attacks of erysipelas; and a number of competent observers have employed the toxins of the streptococcus, in conjunction with those of the bacillus prodigiosus, in the treatment of a considerable number of cases of sarcoma.

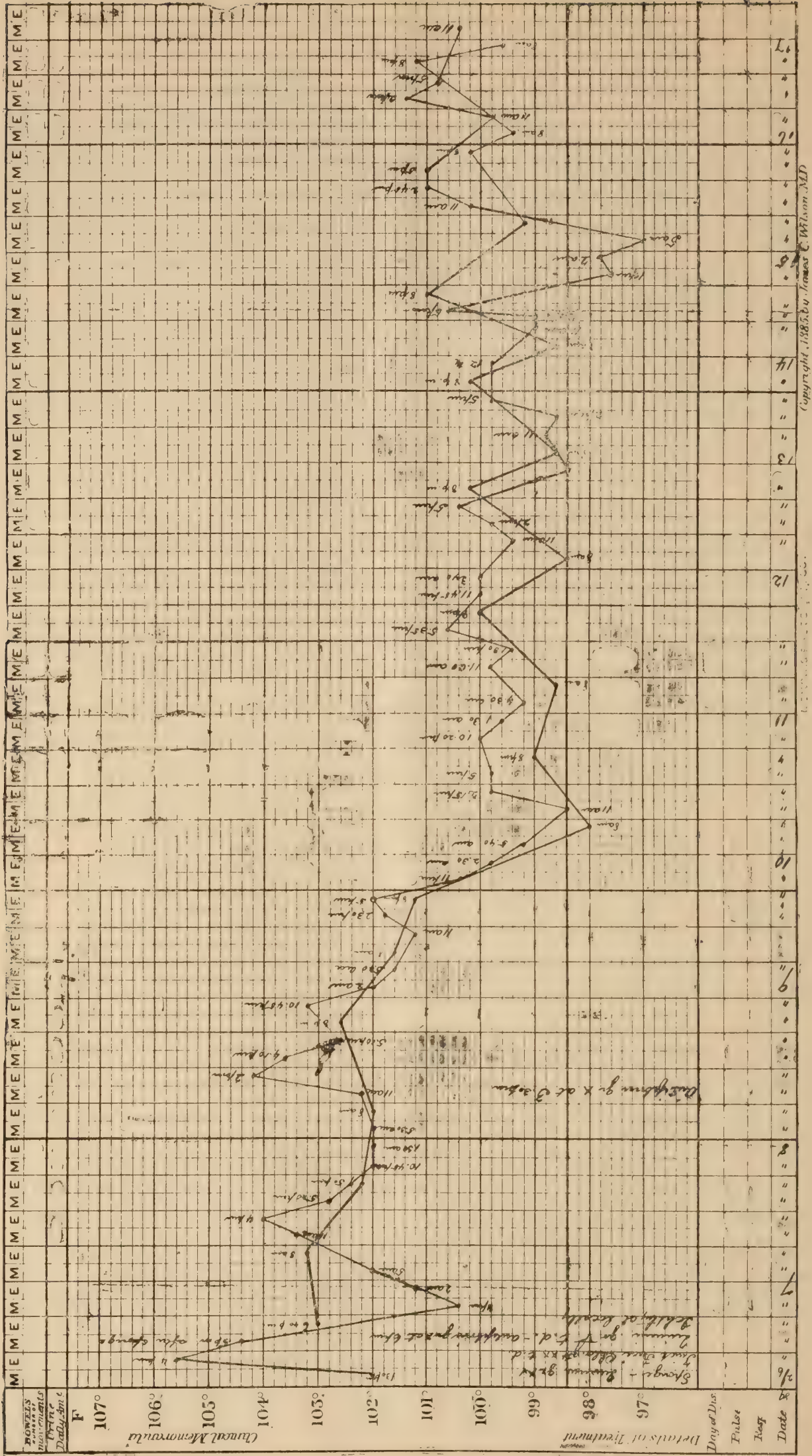
The diagnosis of erysipelas is, as a rule, easy. The mode of onset, the temperature-range, the local lesion, the progress and the duration of the disease, make its recognition simple. From various forms of erythema erysipelas differs in the burning pain, the brawny induration, the sharp line of demarcation, the pyrexia and the other febrile symptoms; from angio-neurotic edema it differs, besides, in the mode of onset and disappearance, both of which are characteristically abrupt and without other than psychic or emotional provocation in this condition, and in the absence of desquamation.

The prognosis is generally favorable, except in the very old and the very young. Few healthy adults die from the disease. The mortality is placed at 7 per cent. in hospitals, and 4 per cent. in private practice. It is related of Trousseau that in twenty-four years he had seen but three deaths from erysipelas. The prognosis is unfavorable when chronic nephritis exists, and in the intemperate, dissipated and broken down.

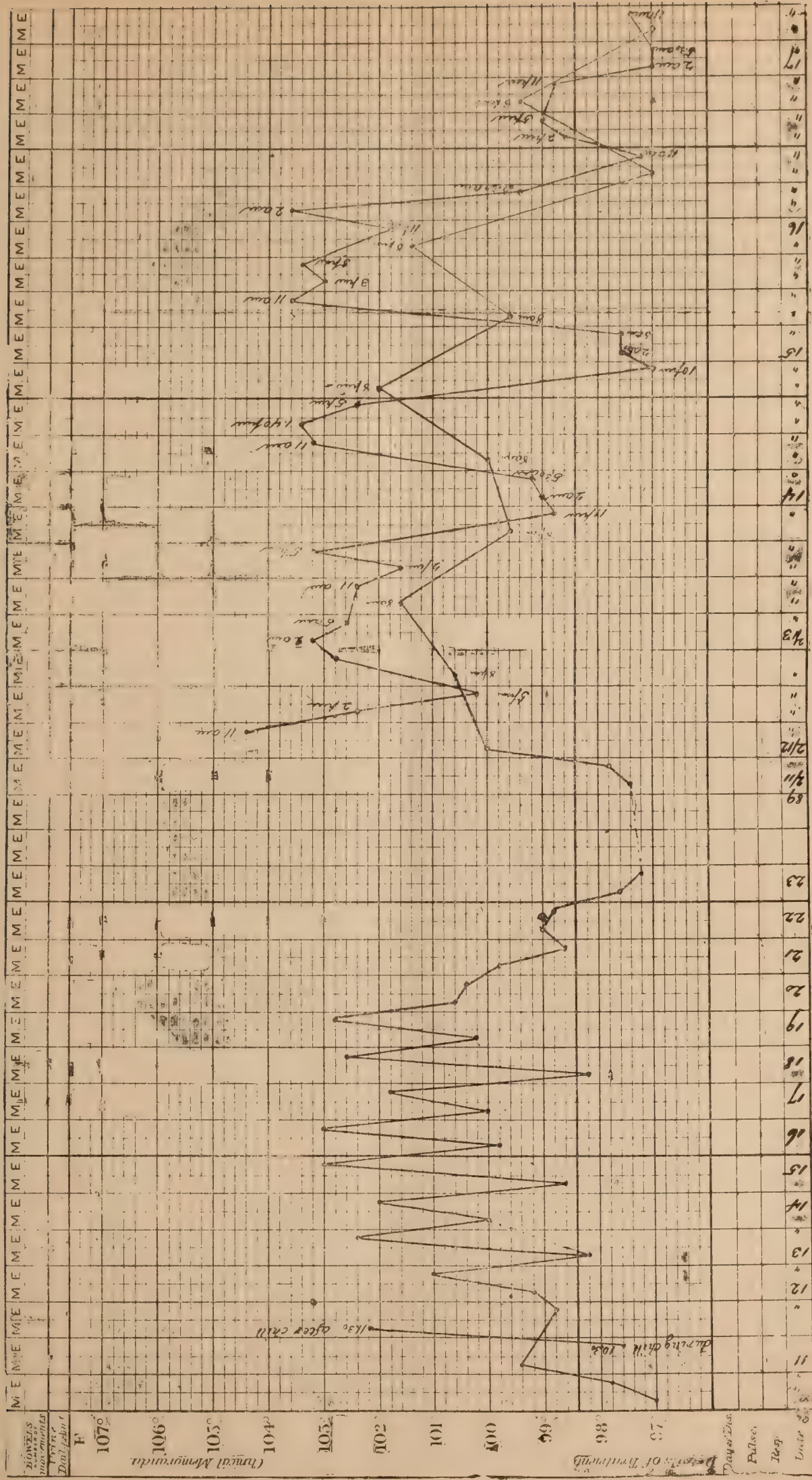
Many remedies have been used in the treatment of erysipelas, but there are two plans in particular that are deserving of the greatest confidence as applicable, respectively, to the two classes into which cases of erysipelas may be divided. In the one class, including the strong and robust, with undamaged heart and blood vessels, pilocarpus and its alkaloid, pilocarpin, act almost like specifics. One-sixth of a grain of the latter, given hypodermatically at the inception of the disease, and repeated once daily, together with from 20 to 30 minims of the fluid extract of pilocarpus adminis-

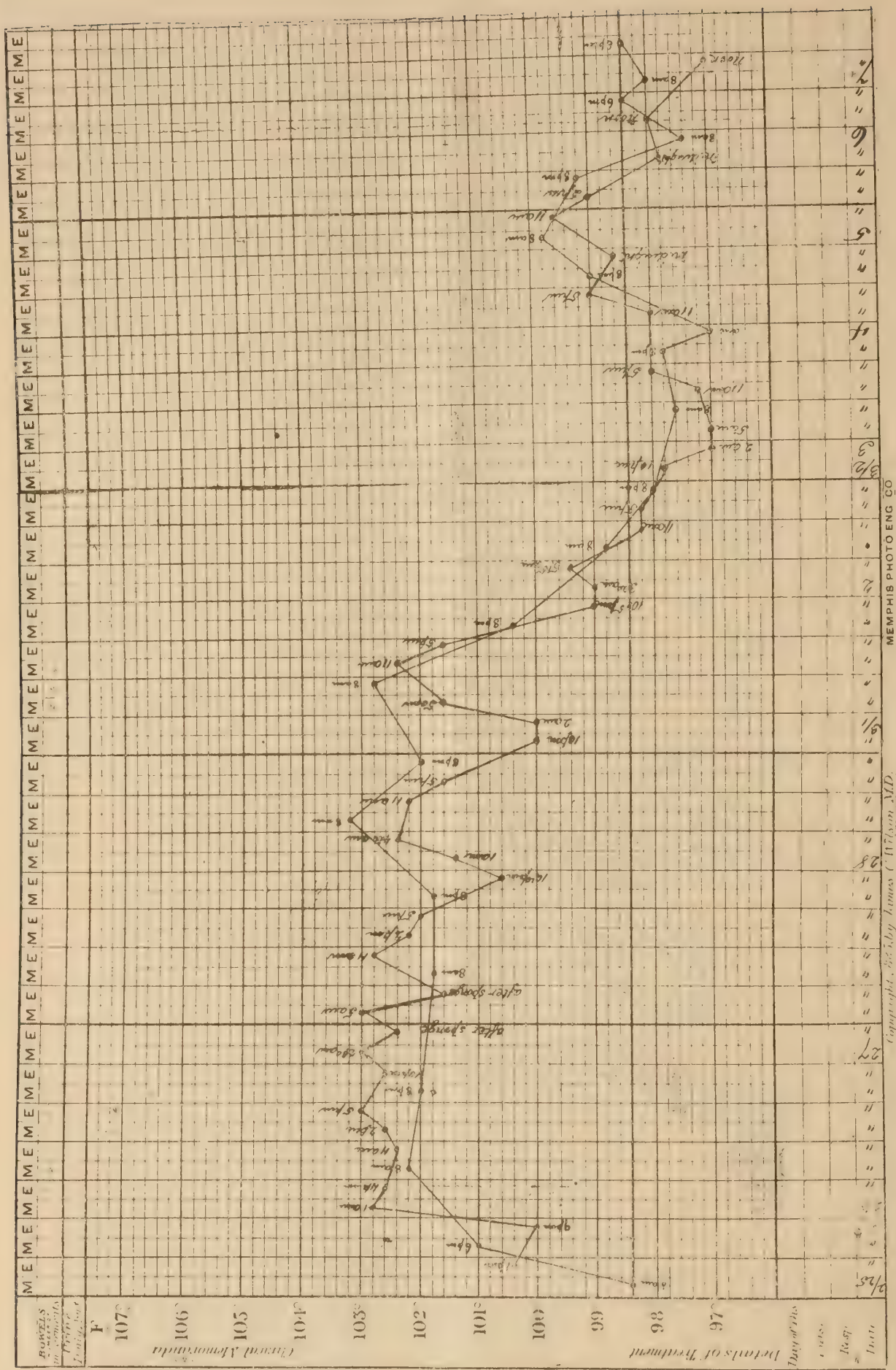


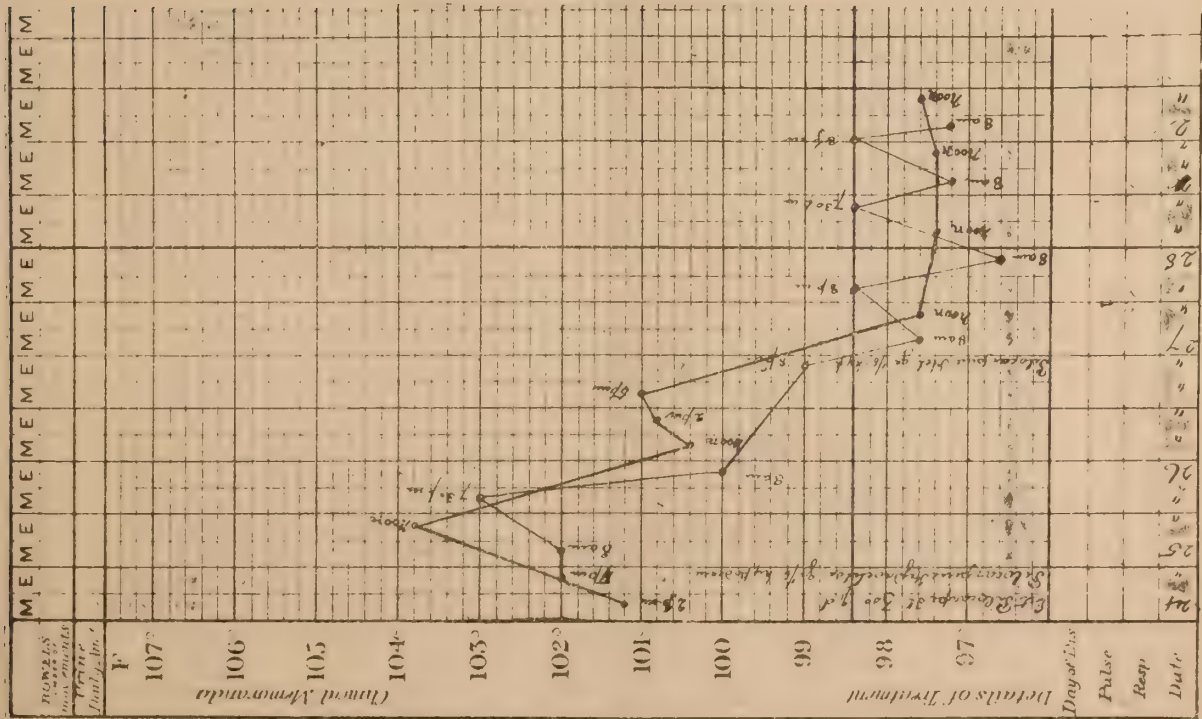
Temperature chart from a case of erysipelas treated with quinin and iron.



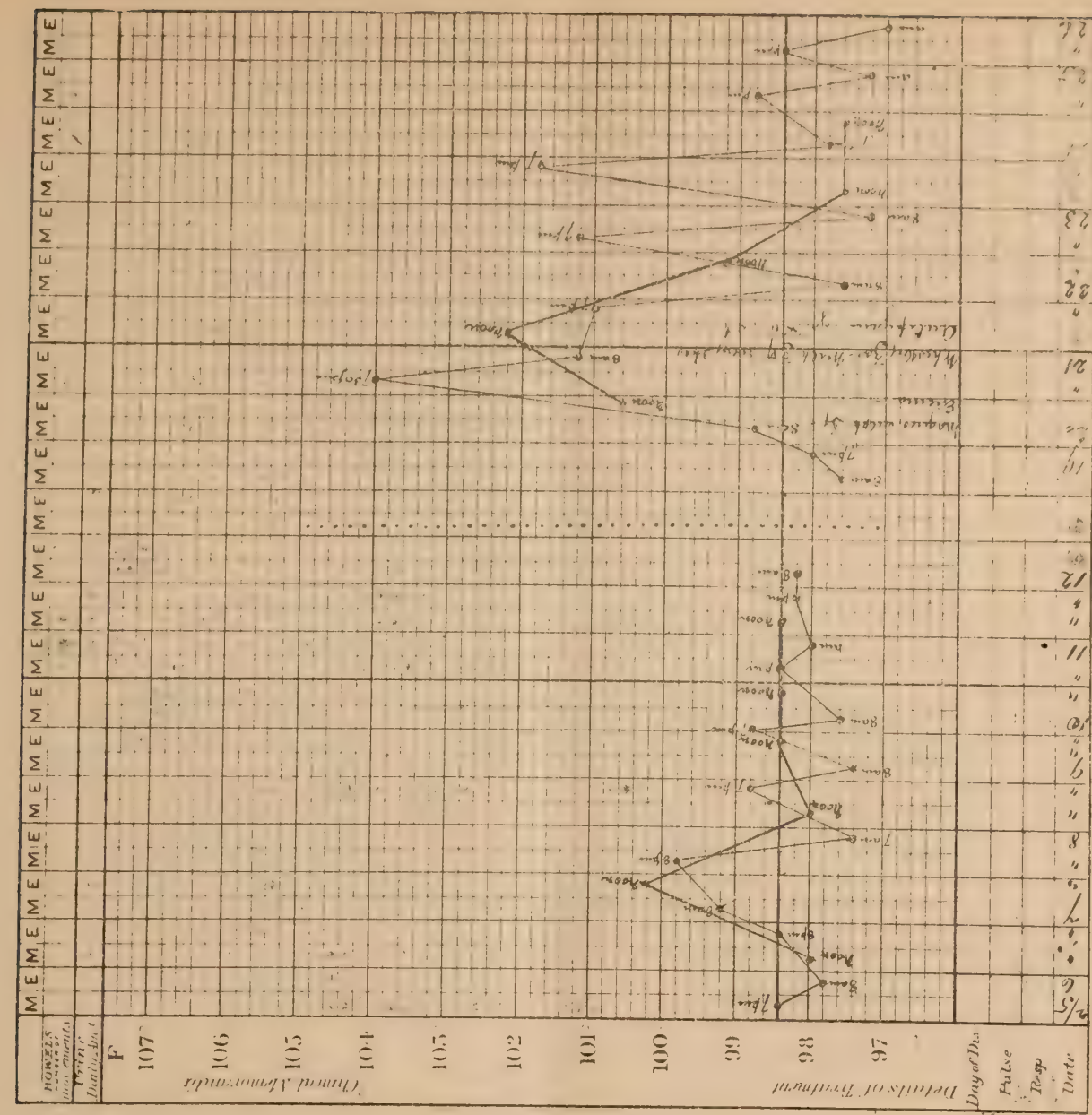
Temperature chart from a case of erysipelas in a man 28 years old, complicated by gonorrheal synovitis and bilateral femoral phlebo-thrombosis, in which the treatment consisted in the administration internally of quinin and iron and the application topically of ichthyol.



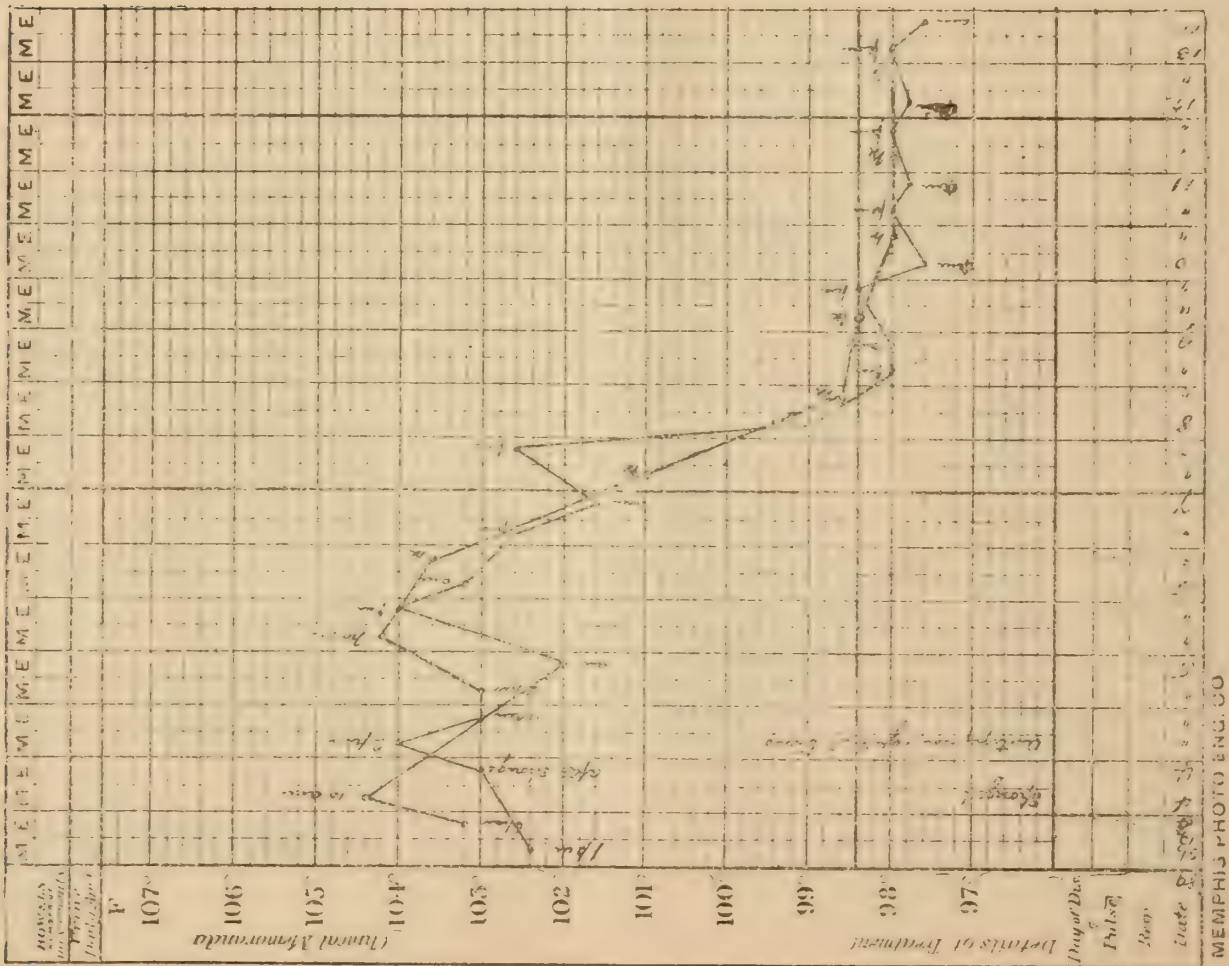




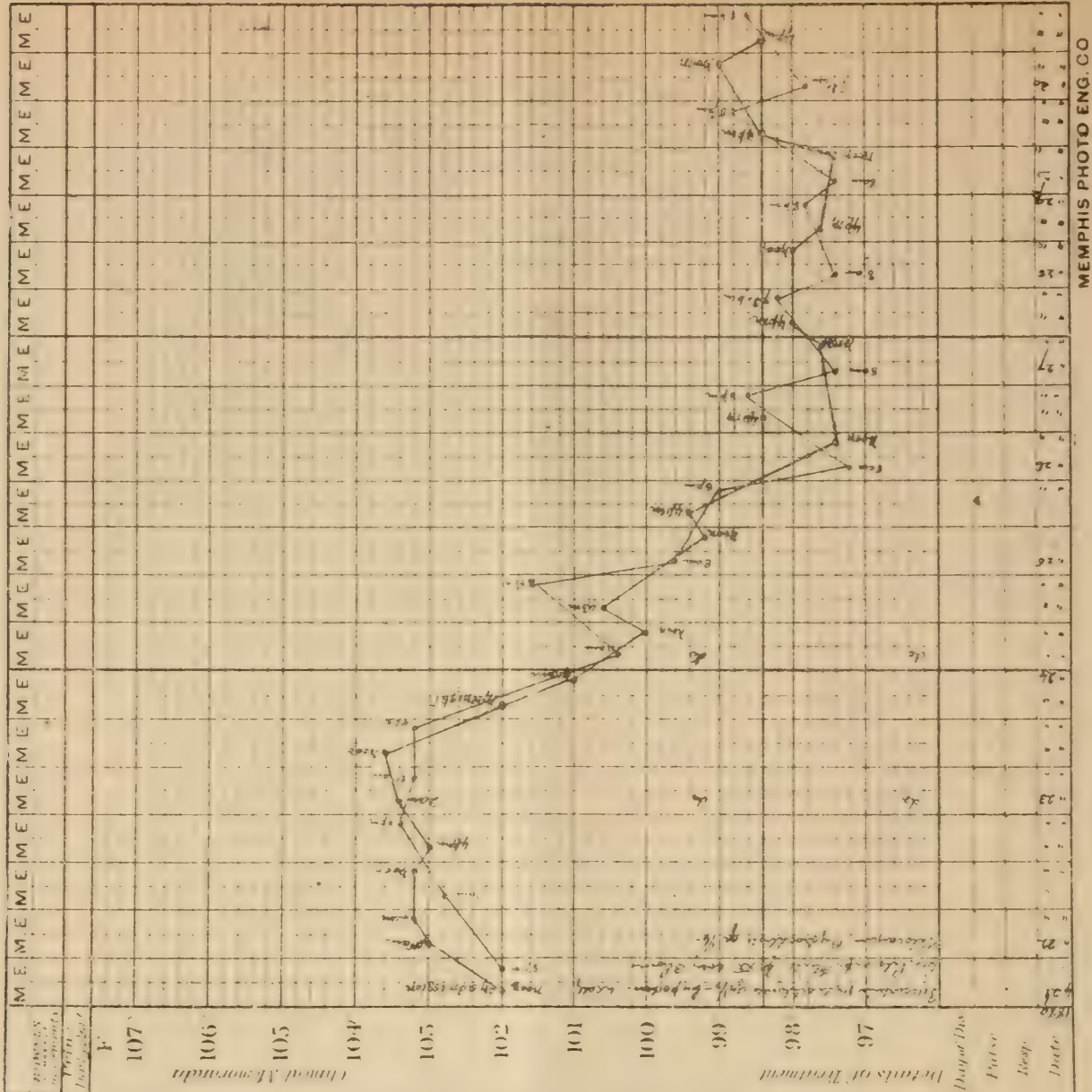
Temperature chart from case of erysipelas in a woman 45 years old, treated with philocarpin hydrochlorate, gr. 1/6 hypodermatically once daily, and fld. ext. pilocarpus 5ss four times daily. Apyrexia was established in 56 hours.



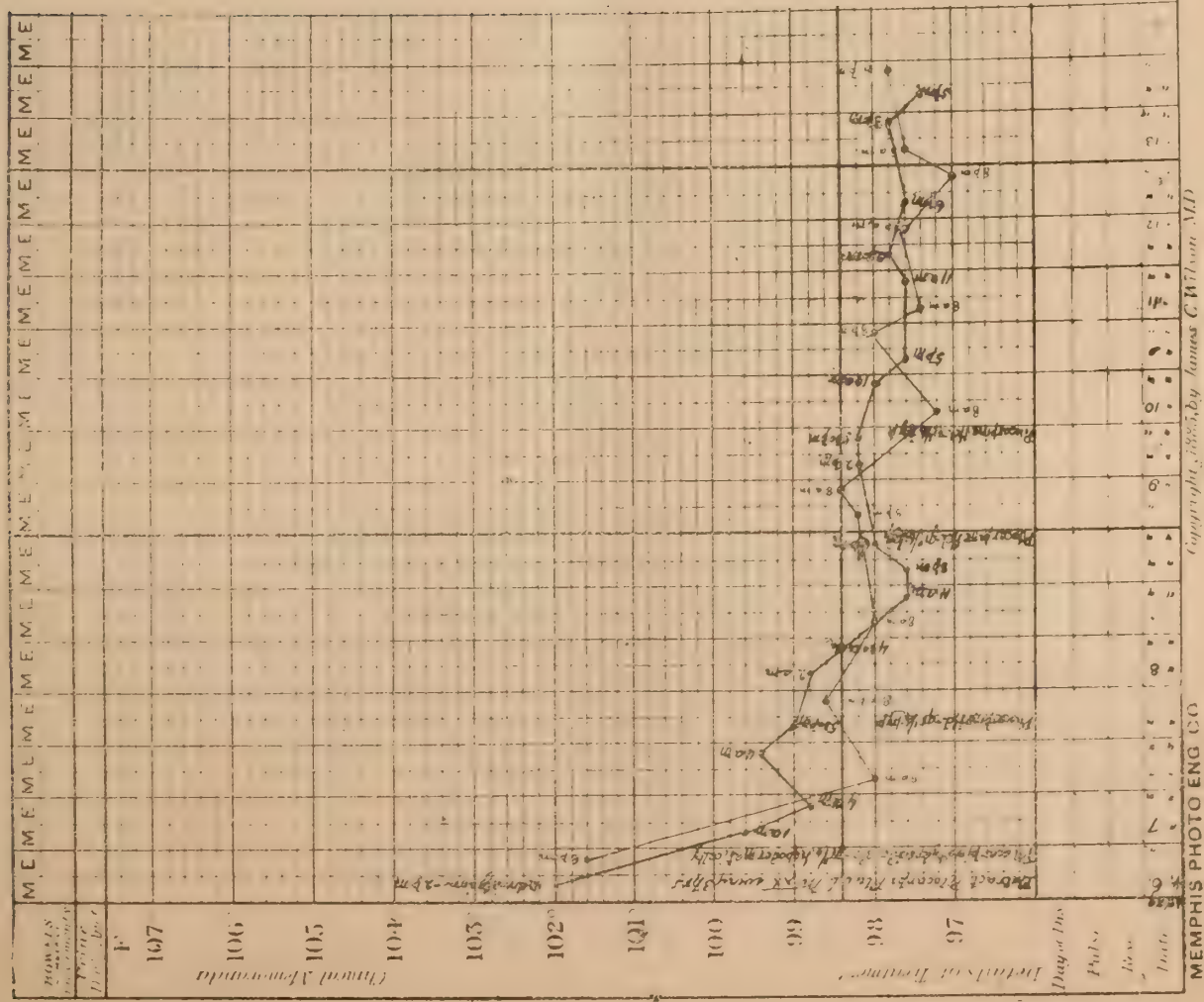
Temperature chart from a case of almost apyretic erysipelas in a woman 80 years old, treated with quinin and iron and lead-water and laudanum, with a relapse after an interval of a week.



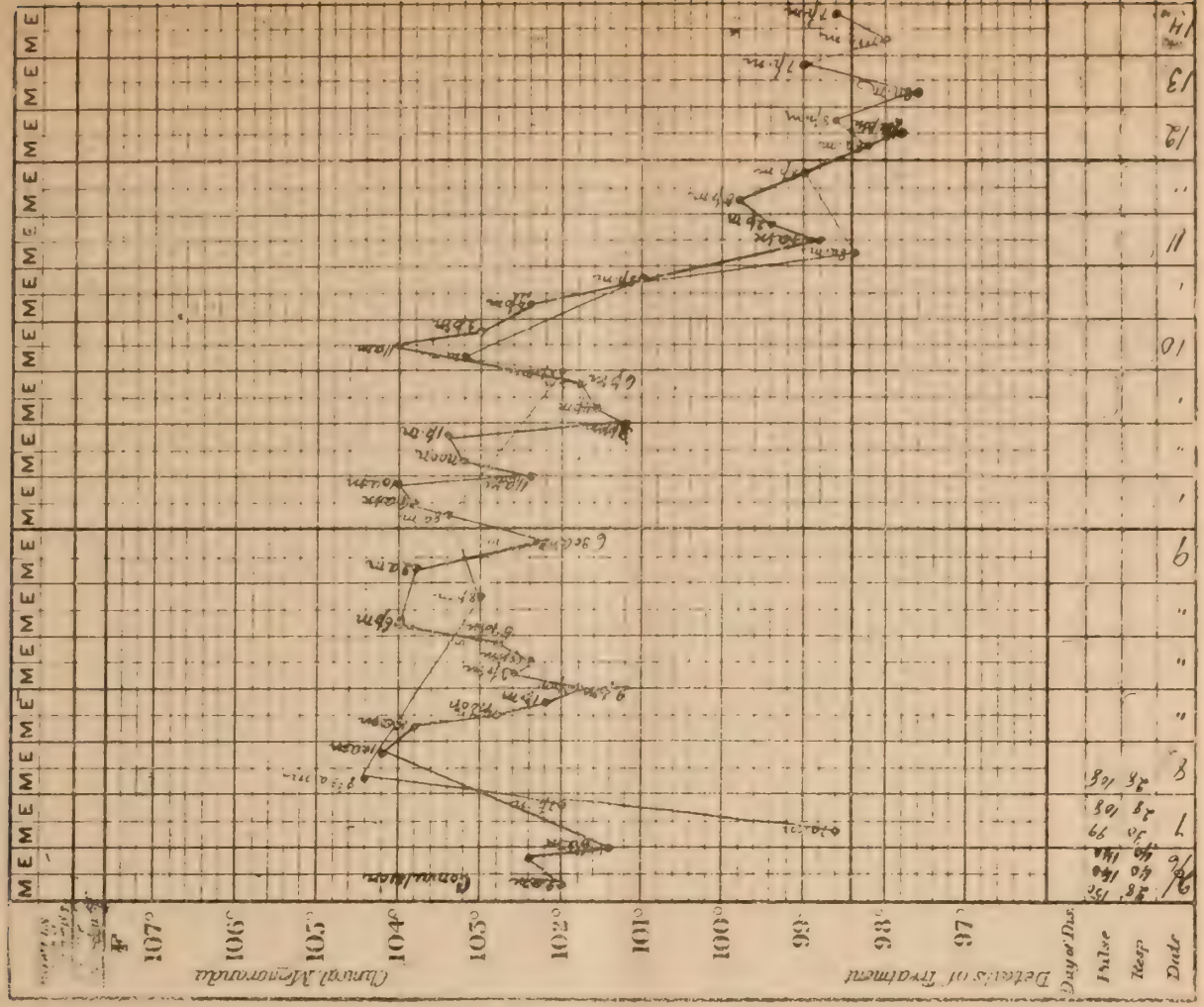
Temperature chart from a case of erysipelas in a man 39 years old, treated with quinin and iron. Apyrexia was established in five days.



Temperature chart from a case of erysipelas in a woman 49 years old, treated with pilocarpin, gr. 1/6 hypodermatically once daily, and fluid extract of pilocarpus m. xx every three hours. Apyrexia was established in four days.



Temperature chart from a case of erysipelas in a man 49 years old, treated with pilocarpin, gr. 1/6 hypodermatically once daily, and fl. ex. of pilocarpus m. xx every three hours. Apirexia was established within 24 hours.



Temperature chart from a case of erysipelas in a woman 30 years old, setting in with a convulsion, and treated with fld. ext. of pilocarpus. m. xx every 3 hours, and antipyrin, gr. v, when the temperature reached 102°, as above.

tered by the mouth from three to eight times in the twenty-four hours, will often cut an attack short in from twenty-four to seventy-two hours. How pilocarpus does good is not known, but it has been shown that the skin is capable of eliminating bacteria, and it may be that the good effects of this form of treatment are due to the stimulating action exerted on the sudoriparous apparatus. It is conceivable that the streptococci are in part cast off as a result of the heightened functional activity of the tegumentary structures, and that further, the death of the microorganisms is hastened by reason of the increased secretion of the sweat-glands. In the other class of cases, including the aged and debilitated, with weak or defective heart and impaired circulation, quinin and iron in combination act most happily. From 4 to 6 grains of the former, and from 10 to 20 minims of ferric chloride may be given every three or four hours.

It is almost needless to refer to the importance of keeping the bowels free and stimulating diuresis and diaphoresis, with the hope of eliminating toxins generated during the course of the disease and averting complications, especially those related to the kidneys. The diet should be simple, assimilable and sustaining. Innumerable local applications have been recommended, the best of which consists, perhaps, of equal parts of ichthyol and lanolin, or other unguent. Injections of mercuric chlorid, gr. $\frac{1}{30}$, of mercuric cyanid, gr. $\frac{1}{6}$, of carbolic acid, 2 per cent., applications of silver nitrate in solution to the margin of the inflammatory area, a spray of camphor in ether, strapping with various forms of plaster, have all been recommended.

Animals have been rendered immune by treatment with cultures of the streptococcus, and a curative serum has been obtained, but the results with regard to erysipelas do not permit of a definite conclusion.

The accompanying temperature charts illustrate a number of points referred to in this communication.

224 South 16th street.

MORTALITY OF PROSTATECTOMY.—Alexander (*Med. Rec.*, October 8, 1898) says the mortality after prostatectomy is still high—about 18 or 20 per cent. for all operators. It is gradually becoming less as the indications for the operation are better understood. The death rate of individual operators will undoubtedly continue to grow less as they become more expert in performing the operation.

ADENOID VEGETATIONS.

BY CARLE LEE FELT, B.A., M.D.

PHILADELPHIA, PA.

Surgeon to the Nose, Throat and Ear Dispensary, St. Christopher's Hospital for Children;
Assistant Otologist and Laryngologist to the Union Mission Hospital, and
Physician to Out-Patient Department, St. Joseph's Hospital.

The very frequent appearance of articles upon this subject during the past few years makes it seem a waste of time to write concerning it, but the persistency with which so many physicians disregard a pathologic condition so common in its occurrence, so far-reaching in its bad effects, so often leading to the impairment or possibly to the loss of some one of the special senses, and rarely even to the loss of life itself, and yet so easy of diagnosis and successful removal, convinces the writer that the subject has not yet been worn out.

Definition and Pathology. Moure (*Twentieth Century Practice*, vol. 6) defines adenoid vegetation as a "hypertrophy of the closed follicles seated in the mucous membrane covering the posterior surface of the vault of the naso-pharynx, and especially of those follicles which compose the glandular mass called the pharyngeal tonsil."

This mass of tissue is frequently divided by a sulcus running on a plane with the posterior termination of the nasal septum, McBride (*Diseases of the Throat, Nose and Ear*, second edition) asserting that, as a result of inflammation, a more or less closed cavity may be formed. At times the hypertrophy is much greater on one side. The variety most easily recognized on digital examination is yielding and spongy, bleeding a little upon the slightest touch. The second variety is tough, fibrous and smooth, and is the rule in adults.

Etiology. The most important factors in the causation of this condition are climatic influences, imperfect hygiene, and a lymphatic dyscrasia. Repeated colds in children under ten years of age, who grow up in dirty surroundings, without proper food, proper clothing, or healthy ancestors, inevitably produce these hypertrophies. In the well-to-do class, where the children are

carefully reared, we must look to the lymphatic dyscrasia, climatic influence and the coddling and misdirected care of solicitous parents. "The local inflammatory changes in the region of the fauces which accompany eruptive fevers in children frequently prove a starting point for changes which result in hypertrophy of the pharyngeal tonsil, or stimulate into renewed activity an already existing growth." (Bosworth, *Textbook of Diseases of the Throat and Nose*.)

Symptoms. The general appearance of the child will usually lead one to recognize the condition. He has a stupid, almost idiotic look, with the lower jaw hanging, no evidence of nasal breathing, the inner canthi drawn down, the eyeball prominent, the normal lines of expression frequently obliterated. When he speaks his voice lacks resonance which normal nasal chambers and a clean pharyngeal vault afford. Deafness is often caused by these growths. They have been blamed for attacks of acute bronchitis, and of asthmatic dyspnea (Moure, *ibid*), and for stammering (Gutzman, *Sem. Med.*, March, 1895). They are undoubtedly often the immediate cause of persistent, purulent otorrhea, of tinnitus, of chronic and severe headache, and of free and foul nasal discharge. In adults the atrophied and fibrous mass must sometimes be removed by curette or cautery before a post-nasal discharge can be stopped.

There are a number of night symptoms more or less frequently present. Besides the snoring and heavy breathing, the little patient may be the victim of night terrors; he will, if strumous, be troubled by night sweats. Nocturnal incontinence is not rarely the only symptom suggesting adenoid vegetations. Pseudo-croup and nocturnal cough are sometimes present, and prove their relation to the disease by rapidly disappearing when surgical treatment has been instituted. Epistaxis might also be included under night symptoms, for it occurs usually during sleep. This may be explained by the position of the patient and the consequent greater determination of blood to the vegetations which, in these cases, are usually spongy and very vascular. One might expect it from the nasal mucous membrane, weakened as it is by the interference with its function. No doubt this is, at times, its source.

Diagnosis. The positive recognition of these growths can be accomplished only by digital palpation or by posterior rhinoscopy. The latter can be more often employed than is the rule, and is

undoubtedly a more refined method. The majority of the cases, however, require the introduction of the finger. Knight (*International Clinics*, fifth series, vol. 1) advises the examiner to stand to the left of the patient, place his right hand on the right side of the patient's head, and as the child opens its mouth to press the cheek in firmly between the teeth. Then the child cannot close the mouth without biting its cheek, and the left finger can be easily introduced and the cavity examined with impunity. Unless some such method is followed the examining finger will frequently be bitten. Knight (*ibid*) confirms the diagnosis by spraying an oily solution into one nostril, its natural egress through the other nostril being prevented if vegetations occlude the naso-pharynx.

Prognosis. As far as life is concerned the prognosis is decidedly favorable, even when nothing is done. This does not affect the moral responsibility of the physician, for he must know that the future comfort and wellbeing of the child, even its mental and moral, as well as physical development, depend upon the treatment instituted. A serious corneal ulcer in a boy of five has refused to heal until the drainage of the nasal cavities was obtained through the removal of pharyngeal hypertrophies. Serious mastoiditis, with its baneful possibilities, can, in some cases, be traced to the presence of this morbid condition. Operations, however carefully done, will occasionally be followed by a temporary increase in the severity of the symptoms.

Knight (*ibid*) believes the recurrence after operation is due to lymphatism or to incomplete removal. In the few cases in which I have observed recurrence, one of these causes could be conceded.

Puberty is usually attended by a diminution in the size of these tumors, or their complete disappearance. Frequently a sufficient amount of lymphoid tissue remains through adult life, secreting a tenacious and irritating mucus, and requiring prolonged treatment or ablation.

Treatment. When the symptoms are mild, the child nearing adolescence, and the grade of hypertrophy moderate or small and of the soft, spongy variety, alkaline washes and instillations twice daily of a 1 per cent. solution of menthol in fluid albolene, combined with general tonic treatment, is justifiable. The patient should remain under observation, and if no improvement is noted in three or four weeks, more active measures should be instituted.

If the symptoms are more marked, the child far from the period of adolescence, or the hypertrophy is excessive, a better result will be obtained in the majority of cases if thorough removal and subsequent therapeutic measures, both general and local, are practiced.

In all cases where the symptoms are marked it is not only foolish but wrong to do or advise any treatment except the thorough emptying of the naso-pharyngeal vault. In these patients the adenoid vegetations have become a positive menace.

Bishop (*Burnett's System of Diseases of the Ear, Nose and Throat*) advises one short radical cure.

Seiss (*Burnett's System of Diseases of the Ear, Nose and Throat*) on the other hand favors sprays and avoids an operation where it is not imperative, considering operations distinctly dangerous unless performed with great judgment and skill.

Bosworth (*Textbook of Diseases of the Throat and Nose*) says: "In all cases * * * the complete extirpation by an operation is the preferable mode of procedure."

Trivial as such an operation may seem to the general surgeon, there are, however, a number of important things to be decided, and the best result obtainable will depend upon (1) the preparation of the patient, (2) the surroundings, (3) the anesthetic administered, (4) the instruments used, (5) the method pursued, and (6) the after-treatment.

1. The patient is put to bed early the night before, a saline purgative administered, and all food interdicted for the six hours preceding the operation.

2. A larger per cent. of operations are performed imperfectly in private houses than in hospitals. The reason is evident. One can do better work when all possible distractions are minimized. The assistants are trained, and the atmosphere is free from that sense of repressed excitement and anxiety so terrifying to the child and so irritating to the surgeon.

3. What anesthetic should be used is a mooted question.

Chloroform is pleasant, easy to administer, and generally considered free from danger in children. Hinkel, in a paper read before the American Laryngological and Otological Society at Pittsburgh in May, 1898 (*Laryngoscope*, vol. 5, no. 1) speaks of eleven deaths under chloroform in operations on the tonsils and adenoids reported by Dr. Halloway in 1896, and adds seven deaths under similar circumstances reported since 1892. He says:

“Statistics show an exceptionally high mortality from chloroform anesthesia in the operation for the removal of lymphoid hypertrophies of the pharynx. The observations of Vienna pathologists show that sufferers from ‘adenoids’ frequently belong to an abnormal type that has been found peculiarly susceptible to chloroform narcosis.”

Würdemann in a recent paper (*Laryngoscope*, vol. 5, no. 4) gives a table of 196 pharyngeal adenoid cases operated upon, 172 under the influence of chloroform, which he prefers. He is satisfied to give “a few whiffs of the vapor, together with suggestion.”

Bromide of ethyl has been used by Bishop and his assistants in about 700 cases with success and safety, and has the advantage in its rapid action, the short time required to regain consciousness after its removal, and its safety. It is best administered on a piece of gauze held tightly over the nose and mouth. From half an ounce to an ounce should be poured on at once. Merck puts it up in sealed ounce tubes, and as purity is absolutely essential to safety, this preparation is the best. In hospital work, where several little patients are to be operated upon in succession and time is of value, the advantages of ethyl bromide (*ether hydrobromic*) over ether are very apparent.

Ether has been a favorite so long, its danger signals are so well known and so easily recognized that, notwithstanding its disagreeable features, headache and nausea, it is and probably will be for a long time the choice of most operators.

Nitrous oxide has the same advantages as ethyl bromide, but the apparatus necessary practically prevents its use.

Local anesthesia in a docile child would be almost ideal. Cocain, while it anesthetizes the fauces and pharynx, does not prevent the pain when the mass is being torn or cut from its base. It works positively against the operator in encouraging the tendency to faint.

As far as eucain is concerned I do not know that it has been tried. In adults, where the cautery is indicated, cocain acts well and is as nearly perfect as elsewhere; some pain being felt, however, if the cautery enters too deeply into the mass.

In an article in the *N. Y. Medical Journal*, Oct. 15, 1898, Mayer discusses the use of Schleich’s mixtures for anesthesia in operations on the nose and throat. The advantages claimed are a great degree of safety, absence of violent excitement and a rapid return to consciousness.

4. The instruments necessary are a mouth-gag, curette and forceps. The most satisfactory mouth-gag is Mason's improved. Either the original or some of the many modifications of Gottstein's is the curette generally used. One should have two sizes of the curette, that he may more easily and gently remove the hypertrophied mass. I prefer Lowenburg's pattern for the forceps, but many men have them specially designed after original ideas.

5. The patient may be in a sitting position, reclining with the head depressed over the edge of the table, or best of all, in the Trendelenburg position, but with the head on a plane with the body and not flexed. When I cannot command this latter position I prefer the child on its side, the head lowered, and the face toward the window.

After the patient is sufficiently under the anesthetic the mouth-gag is introduced and the mass palpated. If it is soft and small the finger nail may be used to thoroughly clean out the vault. If this is not feasible, either the forceps guided by the left fore finger or the curette similarly guided may be used. Frequently both instruments are needed in the operation and the finger nail finally introduced to remove remnants left by the instrument.

Helm (*Ann. de Mal. de l'Oreille*, January, 1898) advises against the introduction of the finger as a final precaution, fearing that septic matter may be carried there. Morse (*ibid*) does not share this fear.

Care is necessary to avoid wounding the lips of the Eustachian tubes. Such an accident is sometimes followed by serious tubal and aural trouble.

6. The after-treatment is simple. The patient is kept in bed for some hours. Douches are seldom given. They may cause acute otitis media. Two or three drops of menthol-albolene (gr. v- $\bar{3}$ i) are instilled in the nostrils twice daily for several days. It is soothing and slightly antiseptic. As to diet, anything may be allowed. Ices and ice-cream are often very acceptable to the sore throat.

Few operations bring such satisfaction to patient and physician. Few operations mean so much to every side—mental, moral and physical—of the child's future life. Too few physicians seem to realize all this.

TUMORS OF THE BREAST.*

BY WM. L. RODMAN, A.M., M.D.

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Adenomata of the breast, as a rule, spring from the upper and inner quadrant, whereas malignant growths spring from the upper and outer quadrant. Fibro-adenomata of the breast are common, but pure adenomata, according to Gross and some of the best authorities on the breast, are exceedingly rare, the rarest of all neoplasms of the breast. It has been stated, very properly so, too, that these tumors (adenomata) may undergo malignant changes. An interesting point in connection with this is the assertion of Raymond Johnson, who has made just the opposite statement, in a series of lectures given before the Royal College of Physicians, London, namely, that no one had ever shown and demonstrated the fact that an adenoma burst through its capsule and infected the surrounding tissues. He challenged the statement, and it has been accepted well nigh universally, that these growths are inclined to undergo malignant change. Yet, certainly the view of the majority of the profession is that they do, at times, undergo malignant degeneration.

Agnew, and also Sands, of New York, stated that they had never known of a single case of breast cancer to be cured by operation. These statements are, of course, entitled to weight. I am not at all pessimistic and have very positive convictions upon this subject, and I think that we can prove that these statements are offset by the experience of many operators at the present time. The point has been made by several of the importance of enlarged glands in the axilla. In the first place, the point has been made very properly that enlarged glands in the axilla cannot be recognized before operation. I would like to emphasize that I do not believe it is possible for any one, however skilled he may be or however delicate a touch he may have, to always recognize enlarged glands in the axilla until it has been opened. The best statistics on this subject show unmistakably that in 65 per cent. of all breast

* Delivered before the Louisville Surgical Society.

tumors that are malignant in character, the axillary glands are enlarged before the patient applies for relief. I had this point emphasized in the first private operation I did in Philadelphia for breast cancer. A physician brought to me a woman upon whom he had operated twice previously for cancer of the breast. He had not removed the entire organ. At the time of our operation it was not possible for him or myself to feel any enlarged glands in the axilla, and he said: "I suppose you will not go into the axilla, because there is no evidence of enlarged glands there." I replied that I most certainly should. I made a free incision, taking out the entire breast, removed a part of the pectoral muscles, went into the axilla and found many enlarged glands well up above the tendon of the lesser pectoral muscle between it and the lower border of the clavicle in the space of Morenheim, as well as numerous enlarged glands between the two tendons of the pectoralis minor and the pectoralis major muscles. It is not possible for any one to say there are not enlarged glands in a case of malignant disease of the breast, because they will exist in a majority of cases when the patient comes to us.

In reply to the question as to how many women with cancer of the breast reach their expectancy without operation, I would say that practically none do, according to the expectancy of life based upon life insurance tables.

As to the mortality following operations for cancer of the breast: American surgeons have done more than those of any other part of the world toward reducing the mortality, and have gotten better results in every particular. I cannot understand why Butlin, Treves, Sutton, and some of the best English authorities to the present day steer clear of the axilla and advise that it not be opened, claiming as they do that the increase in mortality after invading the axilla is 10 per cent. It is particularly strange that the English should be so far behind in this respect, that is in the complete operation as it is understood today, in view of the fact that this procedure originated with English surgeons. The first operation of this kind was not performed by Volkman, as claimed, but was done by Moore, of London, in 1867. England has been just as slow in following Moore's lead in operating for breast tumors as they have been in following Listerism, and today they are the poorest asepticians in the world.

The mortality, according to the best American operators today, is less than 1 per cent.; accurately, $\frac{8.6}{100}$ of 1 per cent. This is based upon an analysis of over 600 cases in my paper published two years ago. Weir's latest report contains a series of 125 cases, Dennis' 75 cases, Bull's 118 cases, Halstead's 65 cases, Powers' 50 cases, etc. Out of a total of about 625 cases there were but 6 deaths, making the primary mortality $\frac{8.6}{100}$ of 1 per cent. This is in marked contrast to statistics given by all English authorities. It is absurd to say that the mortality in breast operations should be 10 per cent. at this day.

I was struck with one thing in Halstead's report, published recently. Nearly all of his patients were elderly women, many of them ranging between the ages of sixty and seventy years, some of them over seventy, and notwithstanding the fact that he does such a radical operation, keeping his patient sometimes on the table for two hours, he did not have a single death in 65 cases. Weir, in his series of 125 cases, did not have a death; Powers, in 50 cases, did not have a death; Dennis had but 1 death in 75 cases; Bull had but 4 deaths in a series of 118 cases, 2 of them dying from erysipelas and 1 from sepsis. His deaths were certainly not due to shock, and it is surprising that so far as statistics go few of these cases die from shock. We may say then that the primary mortality amounts to practically nothing. Admitting that it does add slightly to the danger to invade the axilla, when you consider the ultimate results this element of danger is so little as not to have much weight against the immense advantage gained thereby.

The ultimate results show at the present time that perhaps the best work is being done in this line rather than in any other line of malignant disease, excepting possibly the lip. For years we have been led to expect from 38 to 45 per cent. of cures in operations for malignant disease of the lower lip. Operations for epithelioma of the lip and other portions of the face yield much better results than operations for malignant disease in other localities, but some operators claim even better results from operations for malignant disease of the breast.

Bull was the first man who brought this subject before the profession prominently and in a practical way by publishing a most interesting series of cases upon which he had operated. He has been able to follow the history of every one of his cases, except

4, up to the time of their death, or up to the time of his latest published report, which was January, 1895. He gives in his statistics 26.6 per cent. of cures, and he is a very fair man always. He throws out several cases that passed the three-year limit but afterward died of other troubles. By including the cases so thrown out, then he has a result of practically 30 per cent. of radical cures.

Dennis claims he has saved 45 per cent.; Keen, Halstead and others claim equally good results, and I think we cannot ignore statistics like these, especially coming from men that we all know personally, and believe to be absolutely competent in the first place, and as trustworthy in the second.

There is one point about Halstead's operation that I believe should be mentioned in this connection. I think he does too much. There is no reason in the world for removing the pectoral muscle in the majority of cases. I did so in the case to which I have referred recently operated upon in Philadelphia, but it must be remembered that the disease had recurred twice, and that it extended fully down to the ribs. In my entire experience I have so operated but three times. Such extensive dissection is unnecessary in the majority of cases, especially in view of the fact that the investigations of Heidenhain show that the lymph current is toward the surface instead of in the opposite direction, and if you remove the fascia covering the muscles you have gotten beyond the disease in a majority of instances. In every case Halstead, whether he finds enlarged glands in the neck or not, removes the chain of glands in the neck, and claims to have done that on account of the fact that in many cases operated upon at the Johns-Hopkins Hospital where there were no appreciable enlargements of the lymphatic nodes of the neck, when he went in above the clavicle and removed these nodes and submitted them to microscopic examination they were shown to be infiltrated with cancerous material. I remember that he had this subject up at the time we were there two years ago, and he convinced Keen and others of the correctness of his views, and Prof. Keen afterward told me that he had been shown such microscopic evidences of infected cervical glands. In view of this he has since in many cases gone above the clavicle and removed glands in this situation.

While it is true that we cannot detect enlarged glands in the axilla, as we know enlargements will be found there—and Halstead

claims that following the same line of reasoning we should also remove the glands of the neck above the clavicle—the latter, however, has not appeared to me to be necessary in all cases, but I am convinced of the fact that it is necessary in every case to thoroughly remove the glands and fat in the axillary region if we expect to get a radical cure. I am aware of several cases operated upon for undoubted cancer of the breast that have passed the three-year limit. I saw several cases in the practice of S. W. Gross that had passed this limit. I remember having heard him say that he had eight women walking the streets of Philadelphia who were operated upon for breast cancer that had passed the three-year limit. I have three in my own practice that have passed the three-year limit. One of them was operated upon six years ago and there has been no recurrence. The diagnosis in every case was confirmed by microscopic examination. I think the day for pessimism has passed.

COLOR-BLINDNESS IN RAILWAY EMPLOYEES.*

BY DUDLEY S. REYNOLDS, AM., M.D.

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the C. I. & L. Railway, etc.

Color-blindness, or impaired sense of perception of colors, is found in two classes of persons: those in whom it is congenital, and those in whom it is acquired. Of the first class we may fairly conclude that it represents about 4 per cent. of the entire male population. Norris and Oliver, in their recently published *System of Diseases of the Eye*, vol. ii, p. 325, present some very interesting statistical evidence of the prevalence of this defect. Of 71,994 men examined, 2653 were found to be color-blind. It is interesting to note that the 19,183 examined by Jeffrey, of Boston, show 4.12 per cent. color-blind. A committee of the Ophthalmological Society of Great Britain examined 14,846, and found 4.16 per cent. color-blind. The 37,965 examined by Holmgren and Fontenay

* Prepared by request of the Association of Surgeons of the C. I. & L. Ry. Co.

exhibited 1234 color-blind, being but little more than 3 per cent. Thus it would appear that in Great Britain and the United States color-blindness is more prevalent than it is in other countries. It would be difficult to account for these facts.

Of the various methods of detecting deficient perception of colors, none are to be accounted perfect, because there are so many modifying conditions of the mental state of individuals, and of the atmospheric changes which alter the appearance of colored lights.

There are to be considered as forming the major part of the second class of persons having deficient color perception, the subjects of disease of either the optic nerve, or of the surfaces of the occipital lobes of the brain, where the seat of mental recognition of colors resides.

Captain Abney has shown that examinations of the color sense at less than one meter distant, are totally unreliable; in fact, he has demonstrated, by a series of very ingeniously conducted experiments, that the color sense is widely different in parallel and divergent light.

I have been able myself to demonstrate, in persons who readily matched the colored yarns after Holmgren's method, total inability to distinguish colored lights, by what is known as the lantern test. I am, therefore, inclined to doubt the propriety of relying altogether upon the Holmgren method, or upon Dr. William Thomson's slight modification of it.

The Holmgren method will undoubtedly answer all purposes for determining the color perception of those who work by daylight alone, but for those who are engaged at night time the lantern test is much to be preferred.

An acute observer will match the colored yarns with little or no hesitation, when the same person may be totally unable to discriminate between the red-green and the yellowish-white lights employed in the railroad and marine service.

Now, if we take 4 per cent. of the healthy men as representing the number having deficient color perception, we must add at least that many more who have disease of the optic nerve or brain, impairing the color perception.

According to DeSchweinitz, "The great consumption of tobacco by sailors and railroad employees renders it desirable that examinations for central scotoma should be made among those who

are obliged to watch colored signal lamps. Priestley Smith has testified that tobacco amblyopia would prevent a man from recognizing the color of a distant lamp, although he might recognize the colors of skeins of wool such as are used in testing the color sense. The examinations for color scotoma should be included with the tests for color sense of railroad employees and of sailors." *Toxic Amblyopias*, page 94.

It has occasionally been observed that gastro-intestinal irritation not only disturbs the visual centers of the brain, but destroys color perception, and it cannot be too strongly insisted upon that engineers and switchmen in the railway service, and commanders and pilots in the marine service shall be men of temperate habits. Navigation companies and railroad companies would consult their own interests and the interests of the traveling public, and at the same time vastly reduce the risks of transportation, by guarding against the employment of persons in whom the color sense is impaired, and of those whose habits are such as might likely lead to disturbances of the central nervous system. This, of course, would include all persons given to the use of alcoholics, tobacco, and other toxic drugs, as well as those who have inherited, or acquired, syphilitic taints, and all such as have any manifestation of derangement of the central nervous system.

Of the causes of optic neuritis might be mentioned syphilis, diphtheria, typhus and typhoid fevers, inherited conditions which determine various forms of rheumatism, retinitis-pigmentosa, insanity, etc. It has often been found that persons with high grades of myopia have deficient color perception. It is also frequently observed in high grades of hypermetropia. This is especially true of those persons in whom there coexists even a slight degree of amblyopia.

The conclusions to be drawn from the foregoing statement of facts are these :

1. Four per cent. of the healthy male population of the earth have congenital color-blindness.

2. All those in whom central scotoma exists, from any cause, have impaired color perception.

3. All those who habitually use toxic drugs are especially liable to suffer amblyopia, with increasing deficiency of color perception.

The subjects of inherited blood taints, including rheumatic and

gouty people, as well as those who inherit derangements of the digestive organs or the central nervous system, and all hypochondriacs, are to be looked upon as at least predisposed to defective color perception.

304 W. Chestnut street.

THE TREATMENT OF URETHRAL STRICTURE.*

BY E. A. NEELY, M.D.

MEMPHIS.

Surgeon to the City Hospital.

The whole secret of treating strictures of the urethra is contained in the one word—DRAINAGE.

To be successful in this class of cases a man must possess an excellent mechanical knowledge of the anatomy of the canal and its physiologic functions. I believe, with Guyon, that the normal calibre of the urethra can only be determined approximately. The urethra being a canal only when traversed by a liquid or instrument (in the intervals lying collapsed in longitudinal folds with its walls intact), the true calibre is, therefore, that which separates the walls without stretching them.

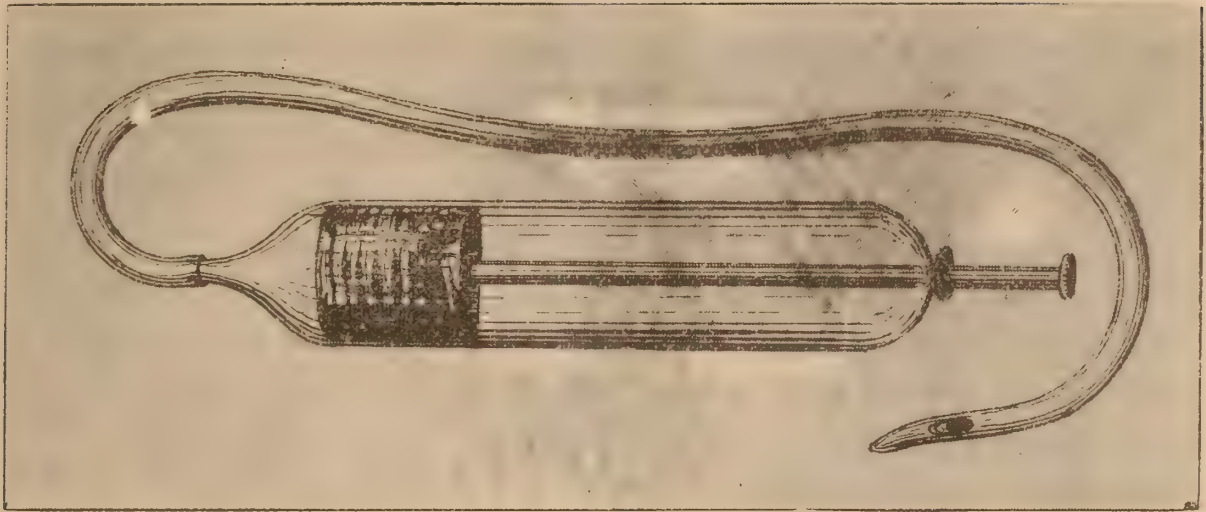
Any one who endeavors to adopt practically that definition which broadly defines stricture of the urethra as any narrowing of the normal canal, will find himself beset by many difficulties. So also will he who attaches much importance to the table of Otis, which, as you know, finds the normal calibre of the urethra by ascertaining the circumference of the flaccid penis. Otis' scale supposes that the canal of a penis 3 inches in circumference at the middle of the spongy portion should chamber a No. 30 French sound without causing the patient much discomfort, and without the operator being required to use much force. I have found the knowledge of such a means of knowing the urethral calibre of much value to me in a collateral way. I do not believe, however, that any standard can be established for the calibre of the urethra any more than that a standard can be established for the duct, or opening into, of any other mucous tract. My own experience has taught me that the operator in each individual case must ascertain by actual experiment the calibre of the urethra upon which he is

*Read before Tri-State Medical Society of Ark., Miss. and Tenn., December, 1898.

working. He can do this by the sense of touch while introducing a sound—if not accurately, at least practically. My own idea is, that it is not really essential that the urethral surgeon should know the calibre of the urethra *accurately*.

The whole principle of the treatment of urethral stricture resolves itself into a question of bladder drainage. Urethral strictures in themselves are harmless, and are usually not painful, but they are productive of a group of symptoms which may all be ascribed to imperfect bladder drainage, and which, by their reaction, affect the general health. These are the symptoms which have induced the patient to consult assistance.

It is not necessary for me to enumerate the symptoms of stricture, inasmuch as my paper deals alone with its practical treatment. In that type of cases called by some "strictures of large calibre," by Gerster spoken of as "inflammatory stenosis," or "incipient strictures," which are, in my experience, nearly always accompanied by a discharge and by a history of gonorrhea within a year or two, my plan for some years has been to rely upon the introduction of a sound about twice a week, and the use, by the patient daily, of some simple astringent wash, preferably a very mild solution of sulphate of zinc through an extemporized apparatus of my own devising. (See illustration). This consists of a plain glass p. p. syringe with a good pointed nozzle and a medium-sized soft rubber catheter which has been cut so as to leave about 6 inches of the eyed end. The patient is instructed to introduce this about 4 inches, and through it throw the solution. This means of deep urethral injection has proven very satisfying to me and my patients. In these cases of incipient stricture it has taken the place with me of medicated urethral irrigations, which were so much in vogue several years ago. It has the advantage of simplicity, harmlessness, and the decided advantage of saving the patient the necessity of making daily visits to the doctor's office, and this, to those who are unable to pay good fees, is an important item. In this class of cases the lymph, which has been poured out as a reparative process, has not become organized, and contraction has scarcely begun. The bladder has not begun to be called on to use extra expelling force, and for all practical purposes no stenosis exists. The only thing the patient has sought relief for is the continued or the recurring discharge. By the simple methods above detailed, and some



Dr. E. A. Neely's device for irrigating the posterior urethra.

general attention to the habits, etc., we may be able, with a fair certainty, to promise relief.

Coming now to the consideration of the treatment of "small" or "organic" stricture, we are confronted with what is to me one of the most satisfactory problems in surgery. If the stricture is permeable we can use at our option gradual dilatation or the cutting operation; if impermeable we have the external operation; each promising the most brilliant results, provided the kidney has not been involved by secondary changes.

When we come to choosing the method of treating permeable strictures, my practical experience and observation, extending over some twelve years, induces me to give preference to gradual dilatation. Indeed, for several years past I have relied solely on this method, except in a few cases where the organic band or bands possessed rare resiliency, in which, of course, the knife had to be resorted to. If I can succeed in getting a filiform into the bladder I feel very safe as to my results with gradual dilatation. In such extreme cases I pass over the filiform a tunneled Otis dilator and forcibly dilate till I can pass a No. 9 French sound. This being done, the gradual dilatation is well under way, and is continued until the patient has a canal easily transversed by from a 24 to a 30 French sound. This calibre is maintained for several months, when the patient is given a sound, taught to use it, and cautioned to continue its use at gradually lengthening intervals. And right here I want to impress the importance of making your patient understand that a stricture is not cured in a few months by either the cutting operation or gradual dilatation. By whichever method he has been relieved it will recur in one year or two years if this continued dilatation is abandoned.

Believing, as I do, that we can accomplish just as much by dilatation as by urethrotomy, in just as short a time, it has seemed to me wrong to subject our patients to the extra hazards of hemorrhage and sepsis, which attend upon all internal urethrotomies. Impermeable and deeply-seated tortuous strictures require external urethrotomy, which is infinitely safer, and with me more satisfactory at all times, than internal urethrotomy. By patience and circumspection we can overcome its difficulties, and we have a wound or wounds perfectly under our control, and we can promise our patient whatever size urethra he chooses to have, compatible, of course, with what is right.

Of course, as before stated, this question of bladder drainage is the central idea in this operation. After it the urethra must be maintained at such a calibre as will give the urine free exit. I will illustrate the good results attending upon successful bladder drainage with a case of external urethrotomy done by me about two years ago:

The patient was a man about 42, photographer. About ten years ago his family physician sent him to an electrical specialist to have his stricture treated with electricity. He had been under this man's care ever since. When he came to me he was emaciated, nervous, having rigors and fever every few days. His urine dribbled away, and had a very offensive odor. His life was a burden to him, and he was at the point of desperation. After attempting to pass a filiform several times without success, I advised and he accepted an operation. Dilatation was maintained by me several months, when I taught him to pass a sound. He now passes a No. 27 French sound twice a month. All his symptoms have disappeared, and he has gained about 30 pounds in weight.

In this case by mechanical means I reëstablished good drainage, and while I gave him a canal that would chamber a No. 27 sound, I think one that would have admitted a No 24 would have accomplished just as much good. In other words, I do not think the benefit was given by establishing a canal of a definite size—simply good drainage was given.

Masonic Temple.

CORRESPONDENCE.

SOME CAUSES OF DEATH.

Editors Memphis Lancet:

We have been taught that the causes of death could be covered by anemia, asthenia, apnea, and coma. Some late writers give a distinct place as causes to hemorrhage and sepsis, which could very well be classed under the former heads. While it is true we can not very well classify under these heads some sudden deaths, such as those caused by accidents, as railroad wrecks, boiler explosions, etc., or those caused by knife and gunshot wounds, yet even these latter ones could nearly all be made to conform to the above named causes.

But these are not what I wish to allude to. It is the four named below, which I have frequently seen in our "mortuary

reports," and which I think could be eliminated. I have reference to heart failure, paralysis, dropsy, and diarrhea. These are all symptoms, and people, as a rule, do not die from symptoms. It would be just as proper to say one died with rose spots or tympanitis when the cause was typhoid fever, as to give as cause of death "paralysis" when it was really due to cerebral embolism or cerebral hemorrhage. Take for instance a heart or kidney lesion, by which we have a damming back of the blood, and the liquid portion exudes, causing a collection of same; if the patient dies from the lesion the death is not due to "dropsy." "Heart failure" may be caused by many things; septic infection, by poisoning the nerve centers, or overstimulation of the nerves controlling the ganglia which preside over the heart's action, and it not getting the amount of rest necessary becomes gradually worn out and strikes work, and death is the result. Some drugs, by overstimulation of the heart muscles or its ganglia direct, will produce a like effect, as will many diseases. Take, for instance, congestion of the stomach, which may be brought on by the ingestion of cold fluids when the body is overheated. This will cause a contraction of the arteries at the base of the brain, so we are told, and cause death. The shock is transmitted along the pneumogastric to its nucleus of origin by its gastric filaments, and is reflected back to those controlling the cardiac and respiratory functions, and thus preventing their proper action. If death is the result, is it due to "heart failure" or "suffocation"?

Numerous other things could be cited as preventing the proper functioning of the heart. It would be just as proper to say one died "for want of breath" as "heart failure," as when one dies it is granted the heart fails, as do all the other organs in the body.

Paralysis is a symptom, nothing more, and it is our business to make inquiry as to the cause of the paralysis, and not put this in a mortuary report.

Take a case of spinal hemorrhage in which there is, as a result, a paraplegia. Of course if the clot is in the lumbar part of the cord, we will have interference with the center presiding over micturition, and a paralysis of the bladder is a result, necessitating the use of the catheter; when by accident or some slight fault in the use of the proper aseptic precautions septic germs get into the bladder, where they set up a violent cystitis, the result of which is an ab-

sorption of ptomaines, and the patient dies from septic infection ; or the poison may ascend even higher by the anatomical route, the ureter, and affect the kidney, the interference with the normal function of which prevents the proper elimination of the products of metabolism ; if the former infection was not enough, this added terminates the patient's life. What is the cause of death ? Paralysis, septicemia, cystitis, nephritis, or the original spinal hemorrhage ?

Paralysis is in most cases due to the loss of nerve force or to a destruction in the continuity of nerve fibres, so the muscles are no longer controlled by their proper governors. A clot of blood in the internal capsule will cause a hemiplegia or diplegia, depending entirely on the amount of damage done to the nerves as they pass through the small space from the cortex of the brain to the proper destination.

Take a mitral regurgitation or chronic nephritis, in which there is a damming back of the blood, which causes the serous portion to transude through the vessel walls instead of passing through its proper channels, and this fluid gathers in the cellular tissue or some one of the cavities of the body ; does this patient die of "dropsy" ?

Diarrhea is as a rule due to a lesion of the bowels, and not a disease of itself, although by the continued drain on the system it may be the cause of death. Still, it is nearly always a symptom.

Now while it is true none of us like to be called on to sign death certificates, still, when we have this unpleasant task to perform, let us be scientific enough to find the proper cause and satisfy ourselves that we are as near the real solution as it can possibly be determined, and give the real cause, instead of symptoms, as the "cause of death." It is no disgrace to acknowledge our inability to arrive at a conclusion, and we may say "unknown" or give the Scotch verdict, "not proven."

Southern Express Building.

H. S. WOLFF, M.D.

THE Ninth Annual Report of St. Joseph's Hospital is out. During 1898, 2023 patients were treated, of whom 106 died ; 376 operations were performed ; 97 patients remained on January 1st, 1899. The report is inaccurate in many respects, and contains numerous typographical errors.

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EDITORIALS.

ADENOIDS.

We present a timely article in this issue from Dr. Carle Lee Felt on a subject which is sorely neglected in this particular locality, namely, hypertrophy of the lymphoid tissue situated at the vault and on the walls of the pharynx, commonly called "adenoids." We are accustomed to consider this condition as almost a disease of childhood, but as is pointed out, the usual atrophy at puberty does not always occur, and quite frequently the condition persists to a sufficient degree to cause troublesome symptoms late in life. The writer has removed a well-marked adenoid mass from the pharynx of a man forty years of age, and Solis-Cohen has seen it at seventy. Delavan, in the course of some remarks on "The Ultimate Prognosis of Neglected Adenoid Hypertrophy," says that this persistency is quite common, and in adult life can cause symptoms of chronic pharyngitis, pharyngeal discharge, interference with the voice, and especially the singing voice. The rule, however, is for the trouble to disappear, as enlargement of the faucial tonsils does, at the age of puberty. We cannot afford to advise children to wait for this time though, principally on account of the danger of the adenoids causing irremediable ear disease before their final disappearance. Gleitsmann has also called attention to the fact that in children the presence of these growths tends to produce deformities of the superior maxillary bones and of the nasal septum. In marked cases the *facies* is characteristic. The mouth

hangs open, nasal breathing is either accomplished with difficulty or entirely abolished, the child is pale, strumous, with enlarged cervical glands, poorly developed physique, especially the chest, and narrow nostrils. There is generally deafness of a varying degree, and frequent attacks of acute inflammation of the middle ear. We would like to lay stress on the fact that *adenoids may exist, disturb the nocturnal breathing and cause ear symptoms in children who can breathe freely through the nose, and are well developed and active in mind and body.* It is in these children that the trouble is apt to be overlooked, since one's suspicions may be allayed by the absence of the textbook symptoms of the disease. The vast majority of children with adenoids have also hypertrophied tonsils which need removal.

In seeking for the cause of this condition, the strumous diathesis must be accorded first place. We are of the opinion that climatic conditions have little if any influence. In a recent investigation of the causes and relative frequency of adenoids (unpublished), the writer has found that in Chicago and Boston, where the average humidity is high and the average temperature low, in Charleston, with high humidity and temperature, and in Denver and Pueblo, where the humidity and temperature are very low, there is not much difference in the relative frequency of the condition. In children (under fifteen) who have nose, throat and ear troubles, a conservative estimate will put 75 per cent. of them as due to adenoids. Indeed Gradle says that in children we see no nasal trouble practically except that due to adenoids and the various forms of nasal suppuration. Leland says that all acute otitis in children except traumatic cases, is due to adenoids.

If we rely on the presence of characteristic symptoms or rhinoscopic examination in the few children in whom posterior rhinoscopy is practicable, many cases will pass unrecognized. Digital examination of the pharynx, as Felt suggests, is the only method of arriving at a proper diagnosis. If this is quickly and quietly done, it can sometimes be effected without making the child cry, though usually rebellion is prompt and vigorous. The examination should nevertheless be made, and he who records the diagnosis in a small number of his cases, does so because he fails to examine them properly.

When the diagnosis is made, operate thoroughly, under general

anesthesia. Holinger's X-ray photographs have demonstrated the fact that the pharynx is most accessible when the head is tilted a little forward on the breast, and this position, and not that of extreme extension, should be adopted in operating. The operation is quickly and safely done by curette or forceps, and little or no subsequent care is needed. Few surgical procedures have a more beneficent effect, immediate or remote.

DIED.—On Saturday, March 11th, Edward Jacob, the youngest son of Dr. and Mrs. M. Goltman.

The associates of Dr. Goltman on the editorial staff of the LANCET extend to him and to his wife their deep sympathy for them in their sorrow.

REPORTS OF SOCIETIES.

PROCEEDINGS OF THE MEMPHIS MEDICAL SOCIETY.

STATED MEETING, FEBRUARY 21, 1899.

DR. B. F. TURNER, President.

Dr. E. C. Ellett presented a case of probable *Chancre of the Conjunctiva*. The sore was situated at the inner end of the lid, and extended to both palpebral and ocular conjunctiva. It was of four days duration, raised from the surface, with sharp edges, an indurated base, very little pain, and slight discharge. The pre-auricular and cervical glands on that side were enlarged. There was no history of any possible source of infection, except the use of a public towel. The patient was a young man of 22, and had never had any previous venereal disease.

Dr. Heber Jones thought that the location of the sore would so alter its appearance as to make a diagnosis very difficult. He agreed that it was at least suspicious, and advised waiting for the appearance of the secondary symptoms.

Dr. F. D. Smythe regards enlargement of the glands at the posterior border of the trapezius muscle, occurring in a clean person without tubercular antecedents, as pathognomonic of syphilis. The presence of this sign and the character of the lesion on the conjunctiva leads him to think that it is a chancre.

Dr. E. P. Sale spoke on *Occipito-Posterior Positions of Vertex Presentations*. Next to L. O. A., R. O. P. is the most frequent position when the vertex presents. The labor is slow and painful, the patient nervous, the os poorly dilated, the uterus concave forward, and the chin may be felt above the pubis. The vaginal examination reveals the anterior fontanelle or forehead at the os. In the management of such a case the tendency is toward extension, and the keynote to treatment is flexion. The head engages its bi-parietal diameter between the promontory of the sacrum and the pubic spine, and is prevented from reaching the pelvic floor. The hand or the vectis may be introduced to supply sufficient resistance to induce flexion, or the head may be turned on one shoulder and thus released and allowed to descend. Version is sometimes resorted to, or a high forceps operation may be done. This is very difficult. If such a case is neglected, the occiput is likely to rotate into the hollow of the sacrum, which constitutes a difficult condition to deal with. If forceps are used the result is generally a ruptured perineum and an asphyxiated child; the child can usually be revived. When the patient is seen before labor and the position recognized, it may be converted into an L. O. A. by having the woman assume the knee-chest position for a few minutes two or three times a day, and then to lie on the right side.

Dr. Smythe usually is satisfied when he recognizes a head presentation, and does not investigate further. If delivery is not accomplished in a reasonable length of time, he applies the forceps.

Dr. Edwin Williams regards the forceps operation in occipito-posterior positions as very difficult.

The President related a recent case of occipito-posterior position in which the cervix was far back and high up. By hooking a finger in the cervix and drawing it forward flexion was produced, and rotation and delivery followed.

Dr. Sale said that the ordinary forceps might be applied reversed in these cases, or the straight forceps or vectis might be used. He thinks it well to explain at once to the patient the false position and probable slow labor.

Dr. Alfred Moore presented a symposium of *Therapeutic Notes* contributed by different members of the Society. Dr. Minor commended the action of a 5 per cent. solution of protargol in purulent conjunctivitis, and the A. C. E. mixture for general anesthe-

sia. Dr. Turner contributed good results in pneumonia from the solid extract of veratrum viride, in quarter and half grain doses. Dr. Sale has found nosophen an excellent substitute for iodoform. Dr. Rice has had good results from the inhalation of ethyl iodide in chronic cough and chronic inflammation of the respiratory tract. Dr. McKinney uses cocain, nitrate of silver, camphor, menthol and chromic acid more than any other remedies. Dr. Williams has found argentamin of value as an injection in gonorrhea. It is a phosphate of nitrate of silver, and contains 10 per cent. of nitrate of silver. It does not precipitate with sodium chloride or albumin. It is antiseptic, and penetrates the mucous membrane. It is quite irritating, and is to be used 1-4000 in the anterior urethra and 1-5000 in the posterior urethra. In a case of acute gonorrhea injections every four hours produced a cure in sixty hours. Dr. Smythe finds pilocarpin the diaphoretic and expectorant *par excellence*. Dr. Ellett mentioned the action of the suprarenal extract, in the proportion of 1 to 10 of cold saturated boric acid solution, as a powerful vasomotor astringent. Mucous membranes are blanched under its influence, and may be bloodlessly cut. Argonin has given excellent results in gonorrheal ophthalmia of infants and adults, and in purulent ophthalmia from other causes. It is used in 5 per cent. solution every three hours. Holocain and orthoform have been made the subject of favorable reports on former occasions.

Dr. Richmond McKinney has had good results from the use of the suprarenal extract locally in acute laryngitis. Orthoform has yielded very unsatisfactory results in his hands.

Dr. Smythe has had excellent results from argonin in 5 per cent. solution in two cases of ophthalmia neonatorum.

Dr. E. E. Haynes had, in a bad case of ophthalmia neonatorum, used an 8 per cent. solution of argonin in one eye, and nitrate of silver in the other. The former acted so much the better that it was subsequently used in both. The recovery was perfect in the eye treated with argonin, but the one in which the silver nitrate was used shows a scar from corneal ulceration.

Dr. Ellett spoke of favorable results obtained in trachoma by the use of cupric cataphoresis. The principles involved were explained. The eye is cocainized, and a pure copper electrode, attached to the positive pole, applied to the everted lid. A current

of two milliamperes is as strong as can be tolerated. The electrode for the application was shown. The treatment is less severe than the application of sulphate of copper.

Dr. Sale thought that antisepsis should prevent the occurrence of ophthalmia neonatorum, and considered its appearance as somewhat of a reproach to the obstetrician, though he has seen it develop after due cleanliness had been observed. He thinks the Credé method for preventing this disease barbarous.

Dr. Ellett said that the Credé method was severe but effective. In Leipzig the percentage of cases was reduced from 10.8 per cent. to 0.2 per cent., and in the Memphis City Hospital *Dr. Ellett* has seen very striking results. The disease has been seen to develop, however, in spite of this treatment, and has, in a few cases, been contracted in utero.

The President corroborated *Dr. Ellett's* statements as to infection occurring in utero.

PROGRESS OF MEDICINE.

SEVEN ONE-MINUTE POINTS ON SYPHILIS OF THE NERVOUS SYSTEM.—*Hugh T. Patrick* (*Jour. Amer. Med. Assn.*, March 11, 1899) presented the following to the Chicago Medical Society at its regular meeting March 1, 1899:

1. Syphilis of the nervous system very rarely means syphilis of the nervous tissue. With but few exceptions it means syphilis of the vessels or of the membranes, or of both—categorically, syphilitic arteritis, syphilitic meningitis or gumma, the first being incomparably the most frequent, the last (gumma) the rarest, the second being practically a combination of the other two. In most instances the symptoms are due only indirectly to these specific lesions.

2. The custom of speaking of nervous syphilis as tertiary is condemnable, as it tends to promote clinical cloudiness in the mind of the practitioner, by conveying the impression that these lesions must occur at a remote period after infection. The nervous system may be attacked before the disappearance of the primary sore; the appearance of lesions of the system within a few months after infection is frequent, and most cases occur within the first year after

chancre than in any other; 50 per cent. come in the first three years, over 60 per cent. in the first five years, and after ten years of quiescence syphilis of the nervous system is exceptional.

3. In the case of a woman a negative history of specific infection is valueless, and in men it is worth but little more. On the other hand a positive history is of the greatest importance, and it is well to bear in mind that syphilis is no respecter of persons, and that the disease may be contracted by any individual regardless of guilt, knowledge, or previous condition of purity.

4. In the present state of our knowledge we are not justified in regarding locomotor ataxia, general paralysis of the insane, and ordinary arterio-sclerosis, as syphilis of the nervous system, though the paramount importance of syphilis in the causation of the first two affections, and possibly of the third, cannot be gainsaid.

5. There is current in the profession a rather illy defined but unmistakable impression that syphilis of the nervous system is nearly always a curable malady. The best treatment will not always remove an incipient syphilitic arteritis, meningitis or gumma; it can never perfectly cure any one of these lesions when far advanced.

6. To treat syphilis of the nervous system with ten grains of iodid of potassium and one-thirtieth grain of biniodid of mercury, three times a day, is to show a lamentable ignorance of therapeutics, and might be compared to attacking a holocaust with a garden syringe. For the treatment of nerve syphilis there is just one special rule: give mercury and give iodid, and give enough of each.

7. What is "enough" of mercury and iodid? At first, mercury to touch the gums while the mouth is kept immaculate, and continuance of a dose just short of this, and usually 120 grains potassium iodid t.i.d. Sometimes 60 grains suffice; sometimes 120 grains are not enough. The question will at once arise, How many patients tolerate this dose? Give it always diluted in at least eight ounces of water, and after meals. Occasionally it will be necessary to give it in a pint of water, one-half to be taken immediately after eating, and the remainder an hour later. Given in this way, Dr. Patrick has only had one patient in more than four years who could not take as much iodid as he wished to give, and in syphilis or suspected syphilis of the nervous system he has never given less than three drams a day, generally six, sometimes more. He has never seen

the utility of beginning with five grains and wasting three or four weeks of valuable time in working up to a full dose. To begin at once with thirty or forty grains is just as easy and much more rational.

THE MANAGEMENT OF THE PLACENTA IN ADVANCED EXTRA-UTERINE ABDOMINAL PREGNANCY.—Ayers (*Obstetrics*, Feb., 1899) under this title, concludes with the following summary:

1. Operate by the vaginal method only when the fetus has already perforated its wall, or when it is suppurating and closely presses against the vaginal wall, with the fetal head "presenting;" remove the placenta if bleeding is slight, then drain.

2. If the fetus is living, do an abdominal section as soon as thorough preparation will permit, starting the incision near the pubes, lest the gestation sac be extra-peritoneal.

3. Remove the fetus first, without disturbing the placenta, if possible.

4. If the placental circulation is active, ligate the ovarian and uterine arteries before separating the placenta.

5. To control hemorrhage during the removal of the placenta, compress the aorta, and compress the bleeding surfaces with hot gauze.

6. If extra-peritoneal, enucleate, if possible, the gestation sac, following Martin's method, and including the uterus if easier.

7. If the placenta cannot be removed, either stitch the sac to the abdominal wound, dust the placental surface with tannin and salicylic acid, gently pack the cavity with sterilized gauze, and cut off the cord close to the placenta, or treat the placenta as in

8. If the placenta must be left behind in the intra-peritoneal cavity, inject it with a solution of tannin and salicylic acid or formaldehyd, as given above, cut the cord off short, and trim off the amnion or sac, and close the wound.

9. A secondary operation must depend upon evidence of placental disturbance.

10. If the fetus is recently dead, an immediate or delayed operation is elective.

11. If the fetus has been dead a month or longer, do not wait for signs of sepsis, but operate at once. If on operating the placenta is found macerated or putrid, remove it.

REMARKS UPON THE USE OF MAMMARY GLAND AND PAROTID GLAND DESICCATIONS IN GYNECOLOGY.—Shober (*Amer. Jour. Obst., &c.*, Feb., 1899) defines the class of cases in which he has found a use for these preparations, and describes the method of employment.

The Mammary Gland. Following the lead of Dr. Robert Bell, of Glasgow, Dr. Shober began the employment of this agent over a year ago in cases of fibroid tumors of the uterus. Since then he has operated upon only one case of uterine fibroid, and then only on account of painful pressure symptoms and at the urgent request of the patient's physician. The constant hemorrhage was so profuse that it was thought unwise to take any chances. A number of other cases, detailed reports of which will be made later, ranging from large multinodular to small subserous nodules no larger than a cherry, have been treated by the employment of mammary gland desiccations. The results have been most satisfactory, in that the menstrual periods have become regular and less profuse, attended with little if any pain, and the tumors are diminishing in size; and, to say the least, the patients have been placed in far better condition for operation, and the operation itself rendered less difficult. The effect of the drug in checking menorrhagia and metrorrhagia led him to use it in cases unattended by fibroids, as well as in one case of subinvolution after labor, with very gratifying results.

Method of Employment. A five-grain tablet is composed of two grains of the desiccated powder from the mammary gland of the sheep and three grains of the excipient. Each grain of the desiccated powder is equal to ten grains of the fresh gland. The dose is from three to six tablets daily. The full dose or larger doses produce cramp-like, contracting pains in the tumor. These pains are not intestinal pains. Positive results may be expected in from six to eight weeks. No other treatment is employed except measures to keep the bowels regular and occasional tonic doses of nuxvomica or strychnia.

The Parotid Gland. This gland has been used only in cases of ovaritis, enlarged, congested, exquisitely tender ovaries, cases of so-called neuralgia and ovarian dysmenorrhea. Positive results can not be expected when there is associated disease of the Fallopian tubes, such as hydrosalpinx, pyosalpinx, and pelvic inflammatory disease. When employed in selected cases results have been ob-

tained far more prompt and lasting than Dr. Shober has ever observed by any other form of treatment.

Method of Employment. The tablets are made in the same way and of the same strength as are the mammary tablets, and are prescribed in the same doses. The only untoward result which the author has observed was one case in which an urticaria developed. This, however, promptly yielded to treatment after stopping the parotid tablet. This symptom was undoubtedly due to some decomposition in the preparation employed.

ANTISTREPTOCOCCIC SERUM IN EPIDEMIC CEREBRO-SPINAL MENINGITIS.—Chas. P. McNabb (*N. Y. Med. Jour.*, Feb. 25, 1899) reports two cases of epidemic cerebro-spinal meningitis treated with the antistreptococcic serum, and is inclined to the following conclusions:

1. The antistreptococcic serum has a decided stimulant effect on the nerve centers in meningitic coma, but the same results may follow a warm saline hypodermo-clyster.

2. It probably increases phagocytosis, and in this way has some antidotal effect on the *diplococcus intracellularis*.

3. It probably prevents purulent infection of the exudate, and thus lessens the danger in all cases in which the patients survive the first three or four days.

4. From my observation of these cases I am quite hopeful that an antidiplococcus-intracellularis-meningitidis serum can be produced which will have a decided effect in controlling the terrible toxemia of meningitis, and that the associated effect of antistreptococcic serum after the second day will assist in preventing streptococcic infection of the exudate.

5. I am well aware of the fact that the improvement which I saw in these cases may have been a coincidence and not due to the use of the serum, but if it was, it was entirely unlike anything I have ever seen before in such cases.

6. I am satisfied that in Case I the patient would have improved faster if the serum injections had been continued daily for several days longer, and if I should meet with another case like Case II, I would give from forty to sixty cubic centimetres of the serum in the first thirty-six hours.

THE PHYSICIAN'S CODE OF ETHICS NOT NARROW NOR ANTIQUATED. (*Author's Abstract.*) On the occasion of the installation of the officers of the New York County Medical Association, which took place at the Mott Memorial Hall, New York City, on the evening of February 20, 1899, the newly elected president, Dr. Frederick Holme Wiggin, in his inaugural address, embraced the opportunity to enlighten both physicians and the laity more fully regarding certain portions of the National Code of Medical Ethics about which there seemed to be much misapprehension. He began by disavowing the slightest intention of stirring up old strifes, and claimed that he had selected this special topic solely because, in his intercourse, not only with his professional brethren but with various men of affairs, he had been impressed with the fact that certain very important parts of this subject were very generally misunderstood. For instance, only a few months ago a high official in the Homeopathic State Medical Society had told him that when the American Medical Association and its affiliated societies were ready to open their doors to those who held different views from the majority as to the action and dosage of drugs, he, for one, would be willing to leave his organization, discard his sectarian title, and apply for membership. This gentleman, like many others, was not aware that years ago the American Medical Association had taken this very position.

In spite of all that had been said since regarding the code of medical ethics, the members of the medical profession in this country had lived under it in reasonable harmony from the organization of the American Medical Association in 1848 until 1882. In the latter year the first note of discord had been struck by the New York State Medical Society, which, at its annual meeting in Albany, had adopted a different code. As this was in direct violation of one of the by-laws of the national organization, the judicial council of the latter society, by a unanimous vote, excluded the New York delegation. As a result, members of the profession residing in this State who still desired representation in the national body were constrained to organize the New York State and the New York County Medical Associations. This division of the profession, with its resulting dissensions, was especially unfortunate, because it arose from a misunderstanding, and was therefore wholly unnecessary. The American Medical Association had endeavored

to clear up any doubt upon the main question at issue, that of consultations with homeopathic practitioners, by adopting in May, 1884, a series of resolutions making clear the fact that the national code contained no provision in anywise inconsistent with the broadest dictates of humanity and the exercise of the most perfect liberty of individual opinion and practice, and that the true ground for declining professional fellowship with any class of practitioners was not a belief in any particular dogma, but the adoption of sectarian names as trademarks, and the formation of organizations antagonistic to the great mass of the medical profession. This action of the national body, Dr. Wiggin said, had certainly opened the door years ago for the return to the parent organization of the members of the New York State and County Societies, and that the members of the County Society now appreciated this fact, and occupied identically the same position, was evident from the inaugural address, in 1897, of its president, Dr. Arthur M. Jacobus, who, in speaking of certain sectarian practitioners, said: "If they will but drop the sectarian title for that of physician, pure and simple, and let the old and new school question die out, I am sure we will welcome them with open arms."

In closing his address, Dr. Wiggin said that although the local profession might be compelled to wander a few years longer in the desert of disorganization, it was fair to predict that early in the twentieth century a Moses would be found who would lead the profession into the promised land of union and strength. When that gladsome time should arrive when all educated physicians in this State would join hands, he hoped the larger and reorganized society would adopt, as its motto, a paraphrase of that of the famous Musketeers of Dumas—"The profession for the individual practitioner, and the individual practitioner for the profession."

A CURIOUS POCKET PIECE.—(*Author's Abstract.*) Dr. William S. Gottheil, (*New York Medical Journal*, February 4, 1899,) describes a case in which a woman carried a piece of her own skull in her pocket for years "for good luck." She applied for treatment for a different affection, and it was discovered incidentally that a syphilitic periostitis had begun again around the scar left by the ulceration from which her piece of bone had come twelve years before. As in the present case, she had not at that time attached sufficient im-

portance to the matter to consult a physician about it. The sequestrum, of which she was quite proud, was an ovoid piece of bone measuring $2\frac{1}{4} \times 2$ inches, and was composed of two adjacent portions of the two parietal bones, the sagittal suture in the middle showing beautifully. Its upper convex surface showed the outer table of the skull intact. The under concave surface was composed mostly of cancellous tissue, but all along the middle line, at the suture, the inner table was present, showing that at that place the entire thickness of the skull had been lost.

Apart from its curiosity, the case is of interest as showing the very extensive destruction of important organs that can take place in syphilis without systemic reaction or much personal inconvenience. The entire thickness of the skull had been destroyed, and the meninges necessarily exposed, yet the inflammation had not spread to those membranes, and the patient had hardly considered herself sick.

TREATMENT OF ACUTE ARTICULAR RHEUMATISM BY INTRAVENOUS INJECTIONS OF SUBLIMATE.—Gustav Singer (*Centralb. f. d. Gesamnte Therap.*, H. 1, S. 1, 98) details as follows: The arm is left hanging over the edge of the bed, in order to bring the veins into prominence, or a compress above the elbow is employed for this purpose. The skin in the region of the elbow is then disinfected, first by energetic rubbing with soft soap and warm water, next with a one-tenth per cent. sublimate solution, and lastly with ether and alcohol. A sterilized syringe provided with an asbestos piston is filled with the solution and inserted into the lumen of the vein in the direction of the blood current and parallel to its course. As soon as the color of the solution in the syringe has indicated that the needle has entered the vein (blood's entering reddens the solution), the compress is removed and the injection is slowly made. The point of insertion is covered with the finger, the needle removed and the opening closed with iodoform gauze and an appropriate bandage. The solution employed is: corrosive mercuric chloride, one or two; sodium chloride, one or two; distilled water, ten. The dose of sublimate from one-sixth to one-third grain. The injection can be made alternately in each arm. Six to ten injections in the course of treatment, at most, being necessary, it is well to begin at the wrist, and later inject near the elbow. If the weaker solution is

employed, daily injections are given; if the stronger, then once in two days is sufficient. The mouth and teeth must be carefully looked after and cleansed. For this purpose potassium chlorate is used as a mouth wash. The indications for this method are: Acute articular rheumatism of infectious initial processes (erysipelas, phlegmon, puerperal affections), or peculiar history (chills, recurring endocarditis, frequent exacerbation, protracted subacute course, metastases), which point toward a pyemic character. In acute disease, when the salicylates are forbidden, or when the inflammation is localized in single joints, this method is recommended. The contra-indications are to be found in very weak individuals, severe renal degeneration, and by onset of severe symptoms of poisoning. *The Monthly Cyclopedia of Practical Medicine.*

THREE OPERATIONS UPON DIABETIC PATIENTS.—Chas. P. Noble (*Am. Jour. Obst.*, Feb., 1899) says that the question of operating upon patients suffering from diabetes is one which must be settled by the surgeon not infrequently. The accepted belief of the profession is that such patients should not be operated upon, and the ground upon which this advice is given is that wounds in diabetic patients are apt to suppurate or to become gangrenous. When one attempts to find the basis of this opinion by consulting the authorities, it is found that the statement is given as a dictum, without giving much evidence in support of it. It is probable that it is based upon the experience of surgeons in dealing with gangrene of the extremities in diabetic patients. Dr. Noble has had occasion to operate three times upon diabetics, namely, for cancer of the breast, ventral hernia, and vaginal hysterectomy for complete procidentia, in which case anterior colporrhaphy was also done. The first two patients made good recoveries. The third patient did well for four days, after which time symptoms of coma supervened and death occurred from diabetic coma on the sixth day.

HEMORRHAGE AS A SIGN OF CONGENITAL SYPHILIS.—In the course of the description of a case of hemorrhagic congenital syphilis appearing as a hemorrhagic vesicular eruption, Dr. William S. Gottheil, (*Archives of Pediatrics*, June, 1898,) calls attention to the importance of otherwise unexplainable bleedings in infants as symptoms of congenital lues. They may be the only mark of the dis-

ease, especially at first, but they are almost invariably accompanied by a diminution of the coagulability of the blood similar to that of hemophilia, and the case usually goes on rapidly to a fatal termination. Disease of the vascular walls is one of the commonest and best-known effects of the syphilitic poison, leading to hemorrhagic discharges from the mouth, the bowels, the bladder, or the nose; to blood accumulations under the skin and mucosæ, or in the serous cavities and internal organs; or finally, making the syphilitic eruption itself hemorrhagic. The author emphasizes the importance of remembering these facts in the treatment of infants who have hemorrhagic discharges or a hemorrhagic eruption, the cause of which is obscure.

POINTS IN THE ARSENICAL CAUSTIC TREATMENT OF CUTANEOUS CANCERS.—William S. Gottheil (*Author's Abstract*) says :

1. The arsenious acid caustic treatment of skin cancers does not contemplate or depend upon the actual destruction of the new growth by the caustic.

2. The method is based upon the fact that newly formed tissue of all kinds has less resisting power than the normal structure when exposed to an irritation and its consequent inflammation. Hence the former breaks down under an "insult" which the latter successfully resists.

3. If, therefore, the whole affected area can be subjected to the influence of an irritant of just sufficient strength to cause a reactive inflammation intense enough to destroy the vitality of the new cells, the older normal cells will survive.

4. Arsenious acid of properly mitigated strength is such an agent, and its application causes an inflammation of the required intensity.

5. It therefore exercises a selective influence upon the tissues to which it is applied, and causes the death of the cancer cells in localities outside the apparent limits of the new growth, where there is as yet no evidence of disease.

6. It is superior, in suitable cases, to any method, knife or cautery, which requires the exercise of the surgeon's judgment as to the extent to which it is to be carried. That that judgment is often wrong, and necessarily so, is shown by the frequency of recurrence under these methods even in the best hands.

7. It is applicable to all cutaneous carcinomata in which the deeper structures are not involved, and which do not extend far onto the mucous membranes.

8. It is easy of application; it is safe; it is only moderately painful; and its results compare favorably with those obtained with other methods.

EYESIGHT OF RAILROAD EMPLOYEES.—The Italian railroads require of their employes both eyes normal in regard to visual acuity, ocular refraction, perception of red and green, and visual field. They are reëxamined when they are 45 years of age, when they have been injured or affected with a serious cerebral or infective disease, when they are addicted to the use of tobacco or liquor, or merely suspected of diminished visual faculty. The Monoyer scale, Donder's and Holmgren's are the tests used. The eyes of the candidates for the British navy are not tested until they have been in service for some years, and then not by a medical man. The standard exacted by the English railroads of their employes is only one-quarter of the normal eyesight in the best eye. Parliament is powerless to interfere, as eighty members of the House of Commons are directors of railroads and oppose any reform on account of the expense.—*Journal of the American Medical Association*.

A HOUSE EPIDEMIC OF SYPHILIS.—(*Author's Abstract*.) William S. Gottheil says that thanks to a better knowledge of the dangers and modes of transmission of syphilis, and to superior habits of cleanliness, epidemics of the disease are rare in America; yet they occur among the lower classes of our population with greater frequency than is generally supposed. In the *New York Med. Journal* of March 26th the writer records one in which the disease was introduced into the family, according to the history, by vaccination, and in which every member of the family of eight was ultimately infected. The first case was a child of two years; then the mother, aged 34; then two girls, aged 9 and 14, respectively; then a boy of 4; then a girl of 7; and then a nursling, aged 6 months. The father escaped until the last; but late in the spring he came to the clinic with a characteristic eruption, alopecia, etc. The cases were all severe; there were several iritides; all had obstinate and some very extensive mucous patches, and the two year old child had a

syphilitic pneumonia. The site of inoculation was discoverable in two cases only, probably on account of the lateness and irregularity with which the patients were brought to the clinic. In the mother it was upon the center of the cheek, and in one girl it was upon the eyelid. The family was very poor, living in one room, and their habits were very uncleanly.

EXTRA-UTERINE PREGNANCY; CLINICAL PHASES OF.—A. H. Cordier (*Columbus Med. Journal*, March 7, 1899) calls attention to the frequency with which this condition is overlooked, and the imperative necessity for surgical treatment when rupture has occurred. No advantage is gained by delay, even in those cases where mother and child survive the primary rupture. In a typical case of ectopic gestation the menstrual history is as follows:

“Having been perfectly regular up to a given time the woman noticed that she did not flow quite as profusely as formerly, and not quite so long, but that at the end of two weeks a ‘show’ was noticed, this lasting a few days. At her next regular period her flow was more profuse, and clots were noticed to pass, and shreds of membrane (decidua) passed, accompanied with pains very much like those of a miscarriage. It is about this time that the tube ruptures in most instances (eighth to tenth week), and the pains of a slight rupture with a menstrual flow and decidua passing certainly resembles an early abortion. At this time the menstrual flow usually continues until the diseased tube is removed. The flow may cease for a few days, but usually a ‘prune-juice flow’ will continue for weeks. I had one case where the flow continued for six months after the primary rupture and the walling in of the ruptured tube and its escaped contents.”

The author draws the following deductions:

1. Extra-uterine pregnancy is more frequent than is generally believed by most of the profession.
2. When left to nature's resources the mortality is very high, the patient dying from primary hemorrhage or, secondarily, from sepsis and peritonitis.
3. The diagnosis is usually easy after the rupture takes place.
4. The surgical mortality, in skilled hands, when done timely, is very low.
5. No case of ruptured tubal pregnancy is out of danger until after a good ligature has secured the bleeding points.

6. The abdominal route is the best and safest mode of approach in these cases.

7. Most cases should be irrigated properly, and drained after removing the diseased tube and liberating all adhesions.

8. In all abdominal and pelvic diseases these cavities should be examined most carefully before making a diagnosis.

EXTIRPATION OF THE LACHRYMAL SAC AND GLAND.—C. R. Holmes (*Arch. of Ophthal.* January, 1899) presents a most important contribution to this subject, with a report of seventeen operations on fourteen patients. The indications for removal of the tear sac and gland in purulent dacryocystitis are:

1. In cases where it becomes necessary to operate upon the globe as for cataract or glaucoma, especially so should there not be sufficient time to carry out other methods of treatment.

2. In patients who cannot devote the time or who may be unable to endure the treatment by probing.

3. *In all cases where conservative treatment has failed to cure within a reasonable time.*

An operation which obliterates the tear sac, without removing the source of the tears (gland) is incomplete surgery, since annoying lachrymation will persist. General anæsthesia and strict antisepsis are necessary for the success of the operation. The sac is injected with a thick starch solution, colored with iodine, and the canaliculi closed with hemostats. The sac thus made prominent is exposed by a vertical incision, and dissected out intact if possible. The tendo oculi is not cut, if possible to avoid it. The wound is closed and primary union generally follows. The canaliculi are slit and touched with a cautery point to close them.

The lachrymal gland is exposed by an incision at the margin of the orbit, taking care to go through the septum orbitale (fascia) and to avoid mistaking the overlying fat for the gland. The secondary gland is also pushed up and dissected out, and the wound closed. The article concludes with histories of the author's cases.

[This is one of the most important recent contributions to ophthalmologic literature. The paper, as presented to the *Am. Med. Assn.*, was illustrated with a number of drawings and a great many beautifully dissected anatomical preparations.—ELLETT.]

THE INOCULATION THEORY OF MALARIAL INFECTION.—Bignami (*The Lancet*, Dec. 3 and 10, 1898, reviewed in *Am. Jour. Med. Sci.*, February, 1899) ascertained by direct experiment that patients bitten by mosquitoes obtained from highly malarious districts acquire the disease, even if the experiment is carried out in a positively non-malarious region and upon a patient known to have been free from infection.

The patient, a nervous case, had never been beyond the confines of the Santo Spirito hospital in Rome for six years. During the experiment, a competent person collected three specimens of adult mosquito daily from the pools of the Campagna, species never found outside of malarious regions. These were placed in a special room in which the patient slept each night, and he was severely and frequently bitten. After six days there were chilly sensations, followed by a rise in temperature. These persisted on the following day and quinine was given subcutaneously. Forty hours after the onset of the fever ameboid hyaline intracellular organisms were found in the blood. Later in the day pigment had been formed, and it was possible to classify them as estivo-autumnal parasites.

This appears to be the first case of absolute proof of the inoculation theory of Manson. The *Culex penicillaris*, *Culex malarie* (Grassi) were the most likely species to convey the infection. These, with the *Anopheles claviger*, are believed by Grassi to be found only in malarious districts. Bignami concludes that inoculation is the only mechanism of infection which has been demonstrated experimentally, and believes that it is the only way by which infection is acquired.

A NEW FORCEPS FOR INTESTINAL ANASTOMOSIS.—Ernest Laplace (*Annals of Surgery*, March, '99) describes his new forceps as follows:

1. It consists of two rings introduced into the intestines to be anastomosed, and acts as a support to the parts while suturing them.
2. The forceps, being separable into two halves, can be gently withdrawn from a small aperture still unsutured, and the anastomosis can be completed by adding one or two sutures.

The advantages claimed for the method are, to quote the author, "First, rapidity and accuracy of suturing without leaving any foreign body in the gut; second, an absolute control of the field of operation by means of the assistance of the handles of the forceps;

third, the facility with which the forceps are applied, preventing the escape of intestinal contents during the operation."

There are four sizes of the forceps, and they are adapted for cholecystenterostomy as well as for intestinal anastomosis. The actual use of the forceps was demonstrated before the Philadelphia County Medical Association, and in the discussion which followed the method was universally pronounced the most satisfactory yet put in the hands of the profession.

HEMORRHAGIC DISEASE OF THE NEW BORN.—Eleanor Kilham and Elizabeth Mercelis (*Archives of Pediatrics*, March, 1899), from a study of ten cases, draw the following conclusions:

The result of the bacteriologic examination of these cases only adds to the present confusion in regard to a possible specific micro-organism of hemorrhagic disease of the new born. To illustrate this, one need only call attention to some of the findings reported, viz:

The streptococcus alone or associated with an organism having all the characters of diplococcus of pneumonia.

Bacillus pyocyaneus alone or associated with the staphylococcus.

Bacillus lactis aerogenes.

An organism with the characters of Friedlander's bacillus.

Bacillus of Gærtner; also one resembling that found by Kolb in purpura hemorrhagica.

Finally, the negative result at times obtained, and our organism, which while it suggests the diplococcus of pneumonia and probably belongs to the pneumococcus group, is to be distinguished from this as well as from all other described forms that we have been able to find.

FALSETTO VOICE IN THE MALE.—Makuen (*Journal American Med. Assn.*, March 4, 1899) reports five cases of this condition. He finds the larynx in an abnormally high position during phonation. The first patient would not make any effort to correct his voice, which he thought was very pleasing. The second did not know that his voice was peculiar, and when he succeeded in producing the proper sound as a result of some instructions, had no difficulty in continuing to use it. In a third case, pressure with the finger on the epiglottis held the larynx down, assisted by pressure on the larynx

externally. In a short time he could produce a proper chest tone unassisted, and in two weeks was enabled to do so with great facility. The last two cases were relieved by a course of muscle training. Local treatment of naso-pharyngeal abnormalities was without result in every case in which they existed.

PROSTATECTOMY.—Parker Syms (*Annals of Surgery*, March, '99) writes in favor of Alexander's method, which is perineal prostatectomy with suprapubic cystotomy and perineal drainage, modified by making an opening into the peritoneal cavity instead of a suprapubic opening into the bladder. The method of Alexander is to prepare the patient as for ordinary cystotomy. After the bladder is opened suprapubically the patient is put in the lithotomy position and a grooved staff passed through the urethra into the bladder. Cutting down on the staff in the median line, the urethra is opened from the bulb to the point of the prostate. With two fingers of the left hand passed through the suprapubic wound into the bladder the prostate is pushed well down into the perineal wound, and by digital dissection the prostate is shelled out, the bladder and urethral mucous membrane being left intact. The bladder is drained by a catheter passed through the urethra and the suprapubic wound partially stitched with a tube going into the bladder.

As already stated, Dr. Syms would modify the Alexander operation by opening the peritoneal cavity, instead of the bladder, for the purpose of pushing the prostate into the perineal wound.

CEREBRO-SPINAL MENINGITIS.—J. F. Leeper (*Denver Med. Times*, vol. 18, no. 8) makes several important observations in reviewing eighteen cases of cerebro-spinal meningitis. He considers its non-contagiousness settled beyond question. It seemed to depend on some local antihygienic condition, as a change of locality, even of a few miles, would secure immunity, and this removal from the seat of infection seemed to demonstrate the short period of incubation, as in no instance did the disease develop after moving. Instead of the usual ice bags, poultices of flaxseed meal were applied to head and spine, changing every few minutes, to maintain a high degree of heat. For restlessness and headache bromide of potash and veratrum viride were used in full and frequent doses. His mortality was $33\frac{1}{2}$ per cent.

X-RAY DIAGNOSIS OF PULMONARY TUBERCULOSIS.—J. Rudis-Jicinsky (*N. Y. Med. Journal*, vol. 69, no. 7) reports very successful use of the X-ray in the diagnosis of tuberculosis. From a review of twenty cases he finds that with the fluoroscope he can readily distinguish abnormalities in the lung. The normal lung gives a transparent picture showing outline of the organ but no spots. In the early congestive stage of pneumonia, or phthisis, there is a slight shadow, and when consolidation appears the shadows become darker. A cavity is shown by a circumscribed spot of bright reflex, surrounded by an irregular dark line. Pleuritic thickenings show very dark, and when present over consolidated lung tissue give dark spots over an area of marked shadow. Pleural effusions give dark shadows, the upper border of which may be agitated by succussion. Adhesions are opaque, while simple fibrous bands are transparent. In the twenty cases the results obtained by the X-ray were confirmed by physical examinations, and in some instances by post-mortems.

ALBUMINURIC RETINITIS, WITH SPECIAL REFERENCE TO ITS OCCURRENCE DURING PREGNANCY.—McCaw (*Med. Record*, January 28, 1899) concludes :

1. In all cases in which retinitis appears before the sixth month of gestation, emptying of the uterus should be recommended.
 2. Cases occurring after that period should be judged according to the amount and severity of the retinitis and the rapidity of progress.
 3. Cases in which retinitis has shown itself in a previous pregnancy should be carefully watched for eye and urine changes, for in these cases the most serious results are apt to follow.
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THE TECHNIQUE OF SUTURING THE PATELLA AFTER FRACTURE. Dr. Chas. Greene Curnston (*Annals of Surg.*, March, 1899) advocates an incision commencing at the inner angle of the upper fragment, going across the limb, down on the outer side of the patella to below the lower fragment, and thence inward to about the anterior tuberosity of the tibia. This removes the incision from the line of fracture in the bone, gives plenty of room, and makes a flap well supplied with blood.

OTITIS MEDIA PURULENTA CHRONICA, CLEANING THE EAR THEREIN.

Chevalier Jackson (*Journal of the American Medical Association*, January 28, 1899) says that perfect cleansing is the first essential in all cases of chronic otorrhea. He advises: first cleanse with a cotton-armed probe, as well as possible; then apply peroxide of hydrogen, and wipe dry; then syringe with warm peroxide of hydrogen followed by warm sterile water. Dry, and if an accumulation or detritus remain, insufflate a small quantity of finely powdered carica papaya (a digestive ferment). This should be repeated daily. The ferment so disintegrates cheesy masses, inspissated pus, etc., that they can be readily syringed away.

A NEW METHOD OF CONTROLLING POST-PARTUM HEMORRHAGE.

Robert L. Dickenson (*Brooklyn Medical Journal*, vol. 13, no. 3) demonstrates an effective method of checking post partum hemorrhage. After delivery of the placenta a flabby uterus is seized through the relaxed abdominal wall, and lifted; its body is compressed against the lumbar spine, while the lower uterine segment and cervix are encircled firmly with massage. The method is only available with lax ligaments. In this position the uterine and ovarian arteries are partly occluded, and the friction is applied to the cervix, which is the most sensitive part of the uterus to such stimulus. At intervals of a few minutes the uterus should be pressed down into the pelvis, to express any clots that may accumulate in the vagina.

OPERATIVE INTERFERENCE IN EPILEPSY.—J. C. Oliver (*Medical Record*, vol. 54, no. 15) says, from the evidence now at hand, the operative surgery of epilepsy must be regarded as an experiment with a very uncertain future. The facts at our disposal seem to indicate that while trephining may be a justifiable measure in these cases, the careful and conscientious surgeon must warn his patients and the parents not to be too sanguine of good results. Statistics seem to prove that operative measures should be employed only in traumatic cases in which there are localizing features, such as a depressed fracture, a scar from an old injury, or focal manifestations on the part of the brain.

BOOK REVIEWS.

Any medical book can be obtained through the **Lancet** at publisher's prices, postage free. Terms cash. The usual discounts are allowed.

Nervous and Mental Diseases. By Archibald Church, M.D., Professor of Clinical Neurology, and of Mental Diseases and Medical Jurisprudence in the Northwestern University Medical School (the Chicago Medical College), Chicago; Professor of Neurology in the Chicago Polyclinic; Neurologist to St. Luke's Hospital, Chicago, etc., and Frederick Peterson, M.D., Clinical Professor of Mental Diseases in the Woman's Medical College, New York; Chief of Clinic, Nervous Department, College of Physicians and Surgeons, New York. With 305 illustrations and 843 pages. Philadelphia: W. B. Saunders. Price, cloth, \$5; half-morocco, \$6.

This book is the production of two authors well fitted from a clinical standpoint to produce a serviceable volume. We find that they have done so. Among the good qualities which it possesses are, first, that it combines under one cover two subjects closely allied, and which must be studied hand in hand; second, its full and well-adapted illustrations; third, its neatness of print and binding; fourth, its completeness and excellent arrangement.

Though only 200 pages are given to Mental Diseases, nothing is sacrificed for the sake of brevity. A brief and sensible classification of Diseases of the Mind has been adopted. The section on the Stigmata of Degeneration is condensed and tabulated, and shows the work of an authority. The section on Nervous Diseases covers the ground thoroughly, and we commend the book as a valuable one for those for whom it was intended, namely, students and practitioners.

Diseases of the Ear, Nose and Throat and their Accessory Cavities. By Seth Scott Bishop, M.D., D.C.L., LL.D., Professor of Diseases of the Nose, Throat and Ear in the Illinois Medical College; Professor in the Chicago Post-Graduate Medical School and Hospital; Surgeon to the Post-Graduate Hospital; one of the editors of the *Laryngoscope*, etc. Second edition, thoroughly revised and enlarged. Illustrated with 94 chromo-lithographs and 215 half-tone and photo-engravings, 6½x9½ inches. p.p. xix-554. Extra cloth, \$4 net; sheep or half-Russia, \$5 net. The F. A. Davis Co., publishers, 1914-16 Cherry street, Philadelphia.

That a second edition of this book has appeared in a tolerably short space of time is possibly due to the fact that no comparatively small book of the same scope is on the market. We can hardly believe that the new edition appeared in response to any marked demand from the profession. Much that is in this book is good, indeed the article on Diseases of the Mastoid is excellent, but even that is marred by provincialisms and other defects, of which we shall speak in detail. Illustrations of "the author's" devices for this, that and the other, abound in a profusion unequalled since the death of the lamented Jarvis, and unless "the author" has devised an instrument for the performance of a particular operation, that operation is at once relegated to a back seat. As an instance of this we will cite the chapter on the mastoid operation, in which not only are all of "the author's" various instruments depicted, but a picture of "the

author's "operating room, and another half page one of "the author" doing a mastoid operation, both entirely valueless and superfluous. Men are supposed to enter otology by the door of general medicine and surgery, and to be already familiar with the appearance of a properly arranged operating room, and the appropriate costume to wear while performing an operation. Contrasting this with the paragraph on the treatment of deflected septum, we are told that if the deflection is of the cartilaginous septum it can be sufficiently reduced with "the author's" septum knife. If the bony septum is involved, it may be fractured and held in place by "the author's" nasal bougie. No mention or illustration of any of Asch's or other instruments for the proper performance of the operation. Where none of "the author's" instruments come in, "the author's" menthol-camphor spray does, and while he may be justly proud of having given the profession so useful a preparation, it is not the beginning and the end of therapeutics in this branch of medicine. We do not detect the reason for applying a certain treatment on Monday, Wednesday and Friday (p. 99) to the exclusion of the other days of the week. Otologists, rhinologists, etc., are constantly referred to as "specialists," probably because "the author's" specialty is the "only one." We hardly think a symposium of opinions (e. g. on hay fever and on antitoxin) is quite in place in a textbook. It is somewhat of a surprise to find "membranous croup" attired in the dignity of a separate name and a special chapter. Even the Tri-State Medical Society, with its loathing for microscopes and laboratory men, knows better than that.

The book is, as we intimated, profusely illustrated, and the anatomical illustrations are especially good. Photographs of faucial and pharyngeal conditions are so unsatisfactory that diagrams would serve the purpose much better. The new edition contains several new chapters, and is, we are told, a great improvement over the former one.

Diseases of the Eye. A Handbook of Ophthalmic Practice for Students and Practitioners. By G. E. DeSchweinitz, A.M., M.D., Professor of Ophthalmology in the Jefferson Medical College; Professor of Diseases of the Eye in the Philadelphia Polyclinic; Ophthalmic Surgeon to the Philadelphia Hospital; Ophthalmologist to the Orthopedic Hospital and Infirmary for Nervous Diseases. pp. 696, with 255 illustrations and two chromo-lithographic plates. Third edition, thoroughly revised. Philadelphia: W. B. Saunders, 1899. Price, cloth, \$4; sheep or half-morocco, \$5.

This textbook is in exceedingly good repute with ophthalmologists, and quite popular among medical students and general practitioners, by virtue of its being, while quite complete, rather less voluminous than the majority of its American contemporaries. We do not seem to have learned the art of condensation sufficiently well to compress our knowledge of diseases of the eye into as small a compass as our English colleagues, and this is partly due to the fact that American medical books are so much better and more profusely illustrated, and as a rule the typographical work better done than abroad. (We are not speaking of atlases). In these respects the volume under consideration is typically American. The third edition has been brought fully up to date by a full consideration of the bacterial diseases of the conjunctiva, Röntgen ray work on foreign bodies in the vitreous, and all the new diseases and new drugs. Philadelphia is famous for its advocacy of careful refraction; and as a *sine qua non* of such work the author says: "It is a safe rule in all cases of a suitable age, and in the absence of contra-indicating symptoms to employ an active mydriatic before attempting to select correcting lenses." Homatropin is considered sufficiently active, and is commendable

for the brevity of its action, but the author still recommends it in solution (grs. viii to grs. xvi to $\frac{3}{4}$ i), and makes no mention of the homatropin and cocain disks which enjoy such favor in the West. This omission, together with that of the now much used suprarenal extract, and a description of the operations of removal of the lachrymal sac and gland, are all in the way of criticism that can be offered. The book is excellently gotten up, and written in a clear, judicious, conservative vein. It is the product of an earnest worker, and deserves all the popularity it enjoys.

A Textbook on Practical Obstetrics. By Egbert H. Grandin, M.D., Gynecologist to the Columbus Hospital; Consulting Gynecologist to the French Hospital; late Consulting Obstetrician and Obstetric Surgeon of the New York Maternity Hospital; Fellow of the American Gynecological Society, etc. With the collaboration of George W. Jarman, M.D., Gynecologist to the Cancer Hospital; Instructor in Gynecology in the Medical Department of the Columbia University; late Obstetric Surgeon of the New York Maternity Hospital; Fellow of the American Gynecological Society, etc. Second edition, revised and enlarged. Illustrated with 64 full-page photographic plates and 86 illustrations in the text, $6\frac{1}{2} \times 9\frac{1}{2}$ inches. pp. xiv-461. Extra cloth, \$4 net; sheep, \$4.75 net. The F. A. Davis Co., publishers, 1914-16 Cherry street, Philadelphia.

A revision of this work has been very carefully made by Dr. Grandin. Many new plates and illustrations have been added, all of which the more fully carry out the main idea of the book, which is to teach obstetrics clinically. The reader is not burdened with historical facts and fine theories, but is told in a straight and direct manner the best and latest treatment of each condition. In this respect the authors have succeeded in giving us a unique and eminently valuable book. Both practitioners and students will be pleased with it.

BOOKS AND PAMPHLETS RECEIVED.

Nervous and Mental Diseases. By Archibald Church, M.D., and Frederick Peterson, M.D. With 305 illustrations. Philadelphia: W. B. Saunders, 1899.

The Use of Gloves in Surgery, with a Report of an Investigation as to the Efficacy of Cotton Gloves. By W. R. Lockett, Philadelphia. (Reprinted from the *Philadelphia Medical Journal*.)

Disposal of the Stump in Appendicitis Operations. By Wm. H. Haggard, Jr., M.D., Nashville. (Reprinted from the *Journal of the American Medical Association*, June 4, 1898.)

Smallpox and Vaccination. By Albert Bernheim, M.D. (Reprinted from the *American Practitioner and News*, December 15, 1898.)

Abortion: Accidental, Essential, Criminal. By W. D. Haggard, Jr., M.D., Nashville. (Reprinted from the *Southern Practitioner*, September, 1898.)

Diagnosis of Early Pregnancy. By Albert Bernheim, M.D. (Reprinted from the *American Practitioner and News*, November 1, 1898.)

An Open Letter to Dr. Isaac N. Love, owner and editor of *Love's Medical Mirror*, St. Louis, Mo.

Lymphosarcoma of the Mesentery. By Maximilian Herzog, M.D., Chicago. (Reprinted from the *Journal of the American Medical Association*, February, 1899.)

A Case of Lymphangioma Cysticum. By A. E. Halstead, M.D., Chicago. (Reprinted from the *Chicago Medical Recorder*, February, 1899.)

A Peculiar Ependymal Cyst of the Cerebellum and Some Remarks Concerning the Neuroglia. By Drs. E. J. Mellish and Max. Herzog, Chicago. (Reprinted from *Chicago Med. Recorder*, February, 1899.)

Superfetation in the Human Race. By Maximilian Herzog, M.D., Chicago. (Reprinted from the *Chicago Medical Recorder*, vol. 15.)

Study of an Early Placenta in Situ Obtained from the Living. By Maximilian Herzog, M.D., Chicago. (Reprinted from the *American Gynecological and Obstetrical Journal*, April, 1898.)

Twenty-first Annual Report of Presbyterian Eye, Ear and Throat Charity Hospital. J. S. Bridges & Co., 15 S. Charles Street, Baltimore, Md. 1899.

Prostatic Irritability and Enlargement—A Sequence of the Hemorrhoidal State. By J. L. Jelks, M.D., Memphis. (Reprinted from the *Medical Times*, January, 1899.)

Perichondritis and Necrosis of the Arytenoid Cartilage. By Wm. Scheppegegrell, A.M., M.D., New Orleans. (Reprinted from *Annals of Otology, Rhinology and Laryngology*, November, 1898.)

DR. SIMON FLEXNER, of Johns Hopkins, has been elected Professor of Pathology in the University of Pennsylvania, to succeed Dr. John Guiteras, whose resignation we noted a few months ago.

NEWS AND NOTES.

THE staff of the City Hospital has recommended Miss Johanna Thompson for the position of head nurse.

DR. JNO. B. DEEVER has resigned the position of Assistant Professor of Applied Anatomy in the University of Pennsylvania.

DR. J. L. ANDREWS, superintendent of sanitary police, and Miss Mamie Elizabeth Armistead were married in this city on March 7th.

THE LANCET takes pleasure in announcing the approaching wedding of Dr. Sidney E. Pincus, of this city, and Miss Gussie Layman, of New Orleans. Dr. Pincus is a graduate of the Memphis Hospital Medical College and a former interne at St. Joseph's Hospital. The wedding will take place in New Orleans April 11th.

DR. EDMOND SOUCHON, President of the Louisiana Board of Health, and Dr. Quitman Kohnke, President of the New Orleans Board of Health, were arrested on March 13th, charged with manslaughter. The charge is based on the alleged concealment of the fact of the existence of yellow fever in New Orleans last summer. Ignorant of its existence, a citizen of Clinton, La., went to New Orleans, contracted the disease and died. The charge was instigated by Dr. Jno. C. Mackowan, of New Orleans, against whom Dr. Kohnke has filed a suit for damages for libel, he having accused Dr. Kohnke of suppressing the fact of yellow fever being present in New Orleans. An account of these proceedings was published in the LANCET for March.

THE following Committees of the Tri-State Medical Association have been appointed to report at the next meeting in November :

NECROLOGY.

C. W. Culp, M.D., Mammoth Spring, Ark.

W. P. Conner, M.D., Lake Cormorant, Miss.

T. K. Powell, M.D., Danceyville, Tenn.

PROGRESS OF MEDICINE.

Medicine.—Frank A. Jones, M.D.

Materia Medica and Therapeutics.—Edwin Williams, M.D.

Surgery.—E. A. Neely, M.D.

Gynecology and Obstetrics.—W. W. Taylor, M.D.

Ophthalmology and Otology.—E. C. Ellett, M.D.

Laryngology.—Richmond McKinney, M.D.

DR. MARIE J. MERGLER has been elected Dean of the Northwestern University Woman's Medical School, in place of Dr. I. N. Danforth, resigned. Dr. Danforth has been elected Dean Emeritus. The yearly course at this school has been changed from one of two semesters to one of four semesters of twelve weeks each, commencing the first of July, October, January and April. Three semesters will be required; the other semester will be optional. The number of regular students will be limited to one hundred, twenty-five in each class. They will be admitted to competitive examination for place in class, only after having complied with the requirements of the State Board of Health.

AFFAIRS at the City Hospital have furnished food for gossip during the past month. We noted in our last issue the fact of an outbreak of smallpox in the hospital on February 21st. We learn from the daily papers that one patient lay in a full ward with a well-marked eruption for four or five days before it was recognized as a case of smallpox. About fifteen cases subsequently developed, including two of the nurses, without, we are happy to state, any deaths. The hospital was closed and placed under the care of the Board of Health. On account of a violation of the orders of the Board, the head nurse was dismissed. Prior to this action the pupil nurses and internes had petitioned for her dismissal on the ground of (1) being too strict and tyrannical, (2) interfering with the social liberties of the pupil nurses, and (3) attempting to compel a nurse to misrepresent facts concerned with a violation of the Board of Health quarantine regulations. We are informed by the Superintendent that this petition in no way influenced his action in dismissing her, that being done for the reason mentioned above. It is fortunate that an investigation of the charges was not made, since we understand that several little matters, not wholly to the credit of the training school, would have been brought out. The question of tyranny, etc., could never have been raised if those in charge of the hospital had had the forethought to formulate rules for the government of the institution. The whole matter is a sort of dying gasp of the old regime, the smallpox outbreak being made possible by the manner in which the hospital was then conducted, and out of this arose the circumstance which caused the head nurse's dismissal. To comment at length on conditions which no longer exist is fruitless; let us hope to be spared a repetition.

PRELIMINARY PROGRAM OF THE MEDICAL SOCIETY OF THE STATE OF
TENNESSEE.—To be held at Nashville, April 11, 12, 13, 1899.

PAPERS.

1. Subcutaneous Rupture of Large Arteries from Contused Wounds—Dr. J. A. Crook, Jackson.
2. Immunity and Susceptibility—Dr. I. A. McSwain, Paris.
3. Abscess of the Liver, with Report of Cases—Dr. M. Goltman, Memphis.
4. The Hippocratic Oath—Dr. A. M. Trawick, Nashville.
5. Tubal Pregnancy, with Report of Cases—Dr. J. M. Black, Knoxville.
6. The Treatment of Acute Pelvic Inflammation in Women—Dr. H. R. Coston, Fayetteville.
7. The Non-Operative Treatment of Appendicitis—Dr. E. L. Gleaves, Cottontown.
8. Fever in the Mountains of Upper East Tennessee—Dr. H. P. Chance, Tazewell.
9. The Abuse of Quinin in Malarial Hematuria—Dr. J. F. Griffin, Tiptonville.
10. Vesical Calculus in Women—Dr. T. J. Happel, Trenton.
11. Typhoid Fever and its Treatment—Dr. G. C. Morris, Savannah.
12. Chorea, with Report of Case Complicated with Pregnancy—Dr. T. W. Gallion, Dandridge.
13. The Treatment of the Effects of La Grippe on the Prostate and Bladder of Old Men—Dr. A. B. Hansard, Twinville.
14. Melancholia—Dr. B. W. Stone, Nashville.
15. Diphtheria, with Report of Cases Treated with Antitoxin—Dr. C. M. Sebastian, Martin.
16. A Practical Suggestion Regarding Amputations of the Foot—Dr. Jere L. Crook, Jackson.
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ORIGINAL ARTICLES.

INTERESTING CASES OF GENITO-URINARY SURGERY.

BY F. KREISSL, M.D.

CHICAGO.

Professor of Genito-Urinary Surgery, Chicago Clinical School, etc.

Case I. This case is of as much interest to the dermatologist as to the surgeon. It is that of a young man twenty years old, whom I first saw in consultation with Dr. O. L. Schmidt two years ago, when he complained of pyuria, of almost four years duration, not associated with other morbid symptoms. The patient admitted the possibility of even a much longer duration of the disease, which was but incidentally discovered. Upon microscopic examination nothing but an immense number of pus cells and a few flattened epithelia were found. A cystoscopic examination, which I made at the time, gave clear normal urine from the right ureter and pathological urine from the left; the bladder normal. A peculiar feature of the case was the presence of a viteligo on the perineum and the posterior part of the scrotum, an inch and a half in length and about an inch in width. Corresponding with the discoloration, I found the bulbomembranous urethra narrowed down to twenty-five of the French scale. Soon after this, the patient left the city, but returned to my office in October, 1898. He complained of incontinence which he said had existed for the previous three months; at first only at night, but gradually appearing in the day while up and around. An examination of the urine confirmed the presence of colicystitis. Cystoscopy was impossible on account of a contraction of the bulbomembranous urethra, which passed only a No. 16 French. I made a perineal section and found all the tissues from right under the skin decoloration, down to the urethra, transformed into a cicatrized, in some places even cartilaginous, mass, corresponding to the viteligo. Prompt closure of the wound and continence followed within ten days.

Case II. This case, referred to me by Dr. Burke, of La Salle, is one of *Traumatic Stricture*, and clearly illustrates the value of

electrolysis in appropriate cases. I give the history in Dr. Burke's own words:

"W. C., aged 32, unmarried, good habits, good family; never had previous stricture. On October 27, 1898, while standing on the endboard of a wagon which lay crosswise on the tongue of the wagon, the endboard slipped in such a way that his perineum struck the upturned edge of the endboard. He weighed 190 pounds at the time, and the deep urethra was subjected to much violence. Blood began immediately to flow from the penis. I saw him ten minutes after the accident, and blood was then coming from the penis, and his underclothes indicated free hemorrhage. I put him to bed, and in about twenty minutes the hemorrhage stopped. During the two or three days following the receipt of the injury, blood would flow in small quantities on urinating, but there was no flow after that time. For seven or eight days there was much scalding on urinating.

"*Treatment.* Alkalines internally, and some morphin during the first twenty-four hours. Absolute rest for a week or ten days, and prohibition of malt or alcoholic beverages. Water came in a good stream for about two and a half weeks after the injury, then it began rapidly to get smaller every day. At the end of the third week I resolved to begin dilatation. I introduced a No. 10 American with much difficulty, and although using no force it bled easily. Five days subsequently I had to use the sound again, but failed utterly on attempting to introduce a No. 10, the smallest metal sound I had. A smaller calibered gum sound also proved of no avail. Knowing the inveterate nature of traumatic strictures, and the great difficulty in treating them, I concluded that this case required more knowledge and skill than I possessed in this direction, and send it to you."

Upon examining the urethral canal, November 28, 1898, I met the obstruction, impassable for a filiform bougie, five inches from the meatus, near the triangular ligament. I applied electrolysis for about five minutes, when the electrode, size 18, French scale, started to move forward, gradually gliding over three consecutive ridges into the normal-shaped prostatic urethra. Left a No. 22 French Nelaton catheter in the canal for forty-eight hours, and passed a No. 24 silver tube without difficulty; December 6th, silver tube No. 26; December 14th, No. 28 introduced. Steel sound No. 29 French passed easily on December 22nd, and again on February 1st.

I have used electrolysis time and again in similar cases, not with a view of curing the fibrous organized stricture, but with the purpose of obtaining a temporary passage and allowing the introduction of an instrument for internal urethrotomy in the anterior urethra, or to gain space for passing a directing staff to simplify and shorten the perineal section in apparently impassable strictures of the bulbo-membranous portion.

Case III. *Urine Retention in Hypertrophy of the Prostate Cured by Botini's Operation.* This gentleman is 64 years old. I attended him first on November 24, 1898, when he complained of tenesmus, compelling him to urinate every fifteen to twenty minutes day and night, producing only a very few drops each time. His temperature was 101°, accompanied by bilateral epididymitis, cystitis and ammoniacal urine. About six years ago the patient had complete retention for over twenty-four hours, and

for the last two years was in the habit of using the catheter once a day. The residual urine measured, on various occasions, from 150 to 240 c. c. By rectal palpation the right and median lobes were found enlarged and hard. Length of urethra ten inches, posterior part three and one-half inches. Cystoscopic examination corroborated the result of rectal palpation, and disclosed two gonorrheal ulcers of the size of a small bean in the trigonum, where it is elevated by the enlarged right lobe. Regular catheterization and local application gave some relief, but otherwise the conditions and symptoms were unchanged. Bottini's operation was performed December 28, 1898. Antipyrin was used as a local anesthetic on account of the ulcers in the trigonum, and one incision two and one-half centimeters in length was made in the median lobe, and one two centimeters in length in the right lobe. A soft catheter was left in the bladder for three days, and a week after the operation the patient had continence for three hours. The residual urine was 15 c. c. Five weeks after the operation the patient had continence for six hours day and night, with only a few drops of residual urine. The cystitis rapidly improved under local treatment. At that time the length of the posterior urethra was two and one-half inches.

Case IV. This is a case of *Renal Colic, with Pronounced Symptoms of Renal Calculi and Obstruction of the Left Ureter*, which was relieved by ureteral catheterization. This man, who is 35 years old, was taken sick with all the symptoms of renal calculi eight years ago. There were free intervals alternating with colics, which became more frequent and violent for three months previous to my seeing him. The patient had had eight attacks since October, 1898, and during one I saw him first, on January 13, 1899. He stated that he had been in great suffering for the previous two days, and had passed about a half a pint of urine in twenty-four hours. The specimen which I obtained was clear, acid, and did not contain any abnormal products except more uric acid crystals than normally.

Cystoscopy. Turning the prism of the instrument to the left urethral opening and watching it for a while, I could see no urine escaping; from the right ureter clear urine was seen being expelled at regular intervals. I then passed the ureter catheter up into the left ureter, striking an obstruction about five inches from the bladder, which gave way to a few slight attempts to pass it. At this juncture I saw a plug of pus leaving the ureter alongside the catheter, mixing with the clear fluid in the bladder and disturbing its translucency. At the same time urine commenced to flow from the distal end of the catheter, and I collected 8 c. c. This done, I passed the catheter up into the pelvis of the kidney, there collecting a like quantity of urine. Both portions gave evidence of pyelitis. The patient felt immediate relief and passed nearly 3000 cubic centimeters of turbid urine during the subsequent forty-eight hours. After that it became perfectly clear. Upon palpation three days after the catheterization no tumor could be found. The patient was advised to drink a quart of Vichy water daily and to get a china decoction and tannic acid. Early in February he came again to my office, complaining of a recurrence of the pain. I catheterized the ureter and this time found the obstruction about two inches from the bladder, dislodging it in the same way as the former one. Although bearing in mind the probability of a concretion and perhaps a stricture, none was found. At this operation I used a catheter No. 9, which allowed the urine, under great pressure in the pelvis, to escape so fast that I collected about 30 c. c. in three minutes. Though the suspicion of a stone still exists in my mind, the facts in the case, and the immediate relief experienced following the introduction of the catheter, justify the diagnosis of temporary hydronephrosis and

pyelitis. They also emphasize the value and necessity of cystoscopy and ureter catheterization in every case of anuria calculosa or renal colic.

In the literature on this subject I only know of two similar cases, one reported by Dr. Gustav Kolisher, who succeeded in removing a concrement obstructing the left ureter by dislodging it with the ureteral catheter, and helping its passage downward into the bladder by injections of vaselin oil into the ureter. In the second case Caspar loosened an agglomeration of uric acid crystals with the ureteral sound, after which the debris passed into the bladder.

92 State street.

THE SURGICAL TREATMENT OF INFECTIONS OF THE UTERUS DURING THE PUERPERIUM.*

BY WM. W. TAYLOR, M.D.

MEMPHIS.

Gynecologist to St. Joseph's Hospital and the Memphis City Hospital.

Today it is known that infection, as it occurs in the puerperal woman, is dependent either on toxins or on pathogenic germs. The two forms then to be recognized are putrid infection (the sapremia of Matthews Duncan) and septicemia. In sapremia there is simple absorption into the circulation from some focus of decomposition, while septicemia is due to pathogenic microbes, usually the streptococci and staphylococci, and which are generally introduced from without. In either condition the grave infections begin most frequently within the uterus. A decomposing clot of blood, a fragment of placenta, retained membranes or pent-up lochia, may readily cause a putrid infection. In the case of septicemia, if the microbes enter a wound in the vagina or cervix, the infection extends upward, where the conditions in the uterus are more favorable to microbial growth. In an infection involving the entire genital tract the microorganisms may be confined to the mucous surfaces of the vagina and cervix, but within the uterus they have penetrated the muscles and deeper tissues. When the

* Read before Tri-State Med. Assn. (Miss., Ark. & Tenn.), Memphis, Dec. 21, 1898.

puerperal infection has once reached the uterus it almost always travels, not by the mucous surfaces, but through the lymphatics and blood vessels.

In the majority of cases of infection following child-birth our attention is first directed to the interior of the uterus, and in a consideration of the measures of treatment to be instituted it will be convenient to adopt the result of Bumm's studies, which show that there are two primary forms of puerperal endometritis—putrid and septic. In putrid endometritis, as already stated, there is absorption into the circulation from some decomposing material in the uterus. The clinical symptoms are high fever, rapid pulse, and a lochia that is frothy and very offensive in odor. By exploration with the finger the interior of the uterus in putrid endometritis will be found to be rough and covered by shreds of broken-down tissue. The condition of the patient does not appear to be as serious as in the septic variety. The study of these cases has shown that there is formed, beyond the necrosed decidua, a so-called "granulation zone," which establishes a protective wall between the dead and living tissues, and acts as a barrier to the entrance of germs. The treatment of this form of puerperal sepsis consists in the prompt removal of the offending masses with the finger, if they can be so reached, the placental forceps or the large dull curette, followed by intra-uterine irrigation and drainage by a strip of gauze passed to the fundus. In this form of endometritis the use of the sharp curette would be dangerous, as by it the protective wall that has been thrown out by Nature would be destroyed and the germs would be given a ready means of penetrating to the deeper tissues.

In septic endometritis, and it is to the streptococcus infection especially to which reference is made, there is an absence of the leucocytic wall which forms between the dead and the living tissues in putrid infection. The toxins are deficient in their power to attract leucocytes, and the general system has no protection from invasion. The infection passes through the lymphatics; the septic germs travel rapidly, and the indications are for energetic and prompt treatment. In many cases the fever is slow in its onset, and is marked by remissions and exacerbations. The lochia is ordinarily odorless. Local treatment can be of benefit in this variety of infection only in cases that are seen early, and while the sepsis is nearly or quite confined to the uterus. The curettage

should be thorough and with a sharp instrument removing the entire infected mucosa. The operation should be thorough in every detail. The patient should be put under an anesthetic, the vagina and external parts cleaned, and the cervix well dilated if not already open. With the sharp curette the entire endometrium should be removed, free irrigation practiced, the interior of the uterus mopped out with pure carbolic acid, and a single strip of gauze left in the uterus for drainage. The gauze drain should be removed at the end of thirty hours and the uterus irrigated again, first with sterilized water and then with peroxide of hydrogen. Whenever the position of the soft and flabby uterus is unfavorable by reason of its tendency to flexion, to a free exit of its discharges, the gauze drain should be continued for several days.

I have attempted to make a slight clinical differentiation between putrid and septic endometritis. At the bedside this is often difficult to do from the clinical picture alone, and to form positive conclusions it may be necessary to make a bacteriologic examination of the discharges obtained from the interior of the uterus. In the putrid form putrefactive organisms will be found, and in the septic, pyogenic organisms. However, when in doubt as to the kind of infection in a given case, it would be wiser to first explore with the finger or lightly with the dull curette, and if these measures do not give evidences of debris in the womb, then proceed with the thorough treatment that has been advised for septic endometritis.

It is desired to emphasize the fact that to obtain efficient drainage, it is only necessary to pass a twist of gauze to the fundus. Gauze tightly packed does not drain. Usually in these cases the uterus is flabby and the fundus may rest in the hollow of the sacrum, and it is especially in such conditions that the light gauze drain is effective. The soft and friable condition of the uterine wall renders it easy of perforation by the curette, and to be avoided this danger should be kept prominently in mind. The question as to the use of the curette in the treatment of the acute infections of the uterus has been much discussed, and whenever mentioned in medical societies always calls forth much difference of opinion. It can not be seen how the finger and dull curette lightly used in putrid endometritis can do harm. There is no disturbance of the protective wall that Nature has formed, but a simple removal of the offending masses. In the septic variety it is to be remembered

that no infiltration area is found; and the sharp curette, if not used sufficiently early, when the infection is nearly or quite confined to the uterus, cannot add to the danger of the situation. The lymphatics are already open, and if we are guided by Bumm's observations the sharp curette cannot break down a barrier which does not exist. The prompt removal of the entire infected mucous membrane and the mopping out of the uterine cavity with pure carbolic acid will remove considerable septic material and render the interior of the uterus a less favorable culture-ground for the propagation of organisms.

It is well known that in some cases of septic infection of the uterus all methods of treatment directed to stop or retard the progress of the infection are of no avail. In spite of all efforts the infection extends through the lymphatics and blood vessels to distant parts, and the metritis then becomes relatively insignificant. Other pelvic organs become the seat of infection, and as a result there may be suppuration of the ovaries, tubes, pelvic connective tissue, or it may eventuate in a diffuse suppurative peritonitis. A parametritic abscess should be opened as soon as fluctuation appears; ovarian and tubal abscesses, if high up, should be dealt with by abdominal section, but if low down in the pelvis they may be reached by vaginal incision. It is perhaps well here to sound a note of warning against a too hasty and indiscriminate performance of operations for pelvic inflammations occurring in the puerperal woman. During the past year a young woman came under my care after eight weeks in bed following a confinement. She had a mild fever, the pelvis was choked, intra-peritoneal exudates surrounded the tubes and ovaries, and over the abdomen there was a line of induration reaching half way to the umbilicus. With absolute rest, mild purgation and heat and blisters, complete absorption took place and a full restoration of all organs to their normal functions.

The question as to when hysterectomy is justifiable in puerperal sepsis is difficult to solve. It is undoubtedly the proper procedure in some cases, but how are suitable cases to be selected? With our present knowledge as to diagnosis in such conditions we are as liable to operate too early or unnecessarily as too late. Hence it is not thought that the operation will, at present, be very generally adopted.

Randolph Building.

THE USE OF REST IN BED AND THE COMBINED FORM OF FEEDING IN THE TREATMENT OF GASTRIC ULCER.

BY JAMES M. ANDERS, M.D.

Professor of Medicine, Medico-Chirurgical College, Philadelphia, Pa.

In a typical case, in course and symptomatology, of gastric ulcer, there is first the evidence of a mild gastric disturbance; this symptom is followed in a comparatively short time by the more distinctive and characteristic signs of an ulcer. First, probably pain is the symptom most complained of; it is this symptom that frequently brings the patient to consult a physician. This pain is at first diffuse, dull, aching and burning; it is due to an associated catarrhal condition; later comes a pain that is more characteristic—a boring, burning, localized pain just below the ensiform cartilage. This characteristic pain comes on in from five to ten minutes after the patient has taken nourishment, and it goes on apparently increasing in intensity until the contents of the stomach are either digested or have been ejected. There is a third form of pain which occurs in paroxysms independently of the taking of food, and there is still another variety of pain which is acute and lance-like, which is caused by the production of peritonitis.

The history of a typical case will illustrate the treatment of this painful affection better than any bare recital of my ideas in the management of these cases.

A. B., aged 57 years, by trade a tailor, married, has a negative family history, excepting that his parents died while he was quite young. He has had the usual diseases of childhood, and during subsequent years continued well with the exception of an occasional attack of hemorrhoids, for which he never sought medical advice. About a year ago he developed symptoms of mild gastric disturbance; so mild were these symptoms and so mild did they continue that he was not compelled to consult a physician until a few weeks ago. Then with suddenness other symptoms developed while those previously present became aggravated. Pain, which was at first dull, became severe and paroxysmal (gastralgie) in character. After the lapse of four or five days vomiting set in, followed at the end of another day by the vomiting of blood at night. The emesis took place near the end of these painful paroxysms. Perhaps this is the most characteristic form of vomiting in this affection, and it relieves the more or less severe gastralgia.

The vomited material in this case showed the presence of free hydrochloric acid by the use of the usual Gunzberg reagent. There was found to be nearly two per cent. of hydrochloric acid in the filtered gastric contents. This is also a very characteristic symptom of this affection. Hematemesis is almost pathognomonic in this condition; sometimes it is repeated at intervals of a few hours. The hemorrhage in this case is a very characteristic one, in that the blood was dark and clotted, mixed with undigested food, and of acid reaction. The quantity of blood ejected did not exceed three ounces, and the general effect of the hemorrhage was very slight indeed. But in some cases the occurrence of a very small hemorrhage will cause marked symptoms of anemia.

Prior to the occurrence of the hemorrhage tenderness was much more marked than it has been since. Neither have the cardialgic attacks been so frequent or severe.

The diagnosis is perfectly plain in cases in which there is combined gastralgic attacks and hematemesis; and it is better, I believe, not to make an absolute diagnosis of gastric ulcer without the occurrence of hemorrhage. When the hemorrhage is absent, one of the best guides to a diagnosis is the etiological factor in the case; this man is a tailor, and in pursuing his occupation is compelled to sit in such a position that pressure is brought to bear upon the stomach. In addition to the causal influences, the hyperacidity of the gastric juice, the intense boring localized pain immediately or soon after the ingestion of food, and the circumscribed area of excessive tenderness, are all highly significant symptoms.

The prognosis in these cases is doubtful. The greatest danger is from perforation and the resulting peritonitis; other complications are severe hemorrhage causing an extreme grade of anemia, or there may be a perforation into the thoracic cavity, causing a train of evils, such as empyema, pneumonia, etc.

The treatment of gastric ulcer is simple but often unsatisfactory. The patient should be placed in a recumbent position at absolute rest, and be given a greatly restricted diet. Rest is a great factor in the relief of this condition, for it favors the healing process; on the other hand, when the patient is walking around there is always more or less tension upon the walls of the stomach, and consequently more danger of continued irritation and perforation. Recumbency is to be maintained for a period varying from

two or three to six months, according to the degree and permanency of its beneficial effects. In all cases the healing process is a very slow one, and partial cures doubtless account for recurrences that are only too apt to occur.

When it comes to the consideration of food, only the blandest kind of nourishment should be given; skim milk, buttermilk, or whole milk well boiled, are to be preferred. In this case the patient is taking six ounces of skim milk every three hours. I adopted early in this case the use of the combined form of feeding, giving a portion of the nourishment by the mouth and a portion by the rectum, with truly encouraging results.

I believe that in rectal feeding we have a most valuable addition to our means of curing this disease. It is scarcely necessary to speak of its advantages, they are so self-evident. The only points to consider are, the fact that cases can receive much nourishment in this way, and to obtain the best and most easily digested preparation for this purpose. In my hands I have found that a good preparation for rectal feeding is composed as follows: peptonized milk six ounces, bovine one-half ounce, and a few drops of water three times a day. Prior to these nutrient enemata a simple enema should be given so as to flush out the bowel; in this way the best results are obtained.

I believe the medicinal treatment of gastric ulcer to be the least important part of the treatment, and consequently believe that it should be very simple in character. The indication is to assist nature in the healing process as much as possible, but to what extent we succeed is an open question. However, we can at least relieve symptoms as they occur. In this case I suspected associated catarrh of the stomach on account of the diffuse tenderness, and for that condition gave the patient nitrate of silver in one-sixth grain doses combined with the extract of hyoscyamus in the same amount. This was given every three hours, or about one hour after the feedings. Small doses of liquor potassi arsenitis were given after food three times daily to improve the condition of the blood.

Pain has been easily controlled by the administration of chloroform, ten minims in cold water. Small doses of the extract of opium will sometimes act very happily, but when this does not suffice, small doses of morphia may be required, given hypoder-

matically in from one-twelfth to one-eighth grain dose occasionally. Nausea is often apparently assisted by the use of nitrate of silver associated with the extract of hyoscyamus. Small doses of dilute hydrocyanic acid or of the bromide of potassium are beneficial, and sometimes small doses of creosote or carbolic acid act with happy effect.

THE REMOTE EFFECTS OF EYE STRAIN.*

BY E. C. ELLETT, M.D.

MEMPHIS.

Formerly House Surgeon in St. Agnes' Hospital and the Wills Eye Hospital, Philadelphia; Ophthalmic and Aural Surgeon to St. Joseph's Hospital, the City Hospital, the Lucy Brinkley Hospital, the Children's Home, and the Shelby County Poor and Insane Asylum, Memphis.

[The writer first went into a consideration of refraction and accommodation and their errors, together with a consideration of the nomenclature and methods of detecting muscular anomalies. The various mechanical means used in these tests were exhibited. As these may be found in any textbook of diseases of the eye, they are omitted from the published article.]

It is proper, in taking up the subject of eye strain, to state that absolutely normal refraction (emmetropia) is not found in more than one per cent. of eyes, and that perfect muscle balance is not any more common. Thus you can see that if an enthusiast approaches a case with his mind warped on the subject of eye strain, he is almost sure to find some abnormality of refraction or muscle balance, or both. He sticks in an instrument, does a microscopic operation for the relief of a microscopic error, attains a microscopic result, and cries: "What a smart boy am I."

In studying the subject of reflexes in general, the following may be, with advantage, borne in mind: *A local lesion, before it causes remote or reflex symptoms, generally manifests itself by local symptoms.*

Before passing to the special affections which may be set down as due to eye strain, a word or two as to how eye strain is brought about may be in order. "The largest nerve center in the brain is for the function of vision. This is widened by those nerve centers

* Read before the Memphis Medical Society, March 21, 1899.

that control the eye muscles, whose functions are so closely allied to that of vision that they should be considered as part of the visual nerve centers" (Prentice). It is well known that some of the nerve centers for the individual movements of the eye are located in the fourth ventricle of the brain, and others are scattered in portions of the cortical matter. Hence we must find them here and there so closely related to centers governing other functions as to affect these latter in case of overflow of nerve impulse, a phenomenon which, I believe, is now recognized. "Thus viewed from the standpoint of the central nervous system, the question of reflex is robbed of its cloak of mystery, and becomes a common-sense proposition."

In calling attention to the different phenomena which have been ascribed to eye strain as a cause, it will be a good plan to take up the tissues by systems. I think we can dismiss the osseous and circulatory systems with a word. I am not aware that any disorder of the former has ever been assigned to this cause. Of circulatory disturbances those recorded are rather circulatory symptoms of nervous disturbance. Vaso-motor dilatations producing flushings and heat, or the opposite condition of chilly sensations from vaso-motor contractions, have been observed. These rarely exist alone, but usually in company with other and more annoying symptoms. The same is true of cardiac disturbances, which are limited, I believe, to palpitation. Prentice reports two cases in which, along with other functional disturbances, the pulse was habitually 120, and another in which it was 110. In all of these relief was obtained by eye treatment.

Only occasionally do we hear of a disturbance of any portion of the respiratory apparatus due to eye strain. Gould has reported a case in which a chronic "cold" (rhinitis) was relieved by the correction of an error of refraction. As long as this patient wore his glasses his nasal trouble was in abeyance, but if he laid them aside he would soon begin to sneeze and manifest all the phenomena of an acute cold. To a lesser degree I have, some years ago, noticed a similar condition in my own case. Here I think the laying off of glasses caused a conjunctival hyperemia from strain, and this spread by continuity to the Schneiderian membrane by way of the tear passages. As I have not noticed this occurrence in several years, it may be that I only observed a coincidence.

One would hardly expect to see any cutaneous manifestations depending on eye strain, but in a carefully-observed case reported by Oliver (*Phil. Med. Jour.*, Jan. 14, 1899) there can be no doubt of the connection. The patient was a woman of 47, who complained of poor vision for distance and near. For more than thirty-five years she had been constantly troubled with hives. At one time she had obtained relief from medicine for three or four months, the trouble then returning. Foods had no effect on the trouble. No connection between the urticaria and the ocular condition was suspected. Examination of the eyes revealed hyperopia with astigmatism in one eye, and myopia with astigmatism in the other. Suitable glasses, with proper additions for reading, the patient being presbyopic, were ordered. In three or four days the hives disappeared, until increasing presbyopia rendered the glasses no longer suitable, when the eruption reappeared. A proper change in the glasses again cured her. Accidental mistakes in filling the prescription for her glasses, leaving them off for half an hour, and secretly reversing the lenses, all brought on a prompt attack of hives on repeated occasions. Furthermore, the patient said that whereas she had formerly felt always cold and uncomfortable, she felt warm and comfortable with the glasses on. A somewhat similar case of urticaria, with nervous disturbances and constipation, is reported by Price, of Nashville (*Ophthalmic Record*, Sept., 1894), but is not well recorded in regard to these symptoms.

Chas. Herman Thomas (*Trans. of the Med. Society of Pennsylvania*, 1894) mentions a case in which, along with some similar symptoms, a prickling sensation over the whole body at all times, but mostly at night, was relieved by a tenotomy of one of the ocular muscles.

In the genito-urinary apparatus we find a record now and then of certain disturbances, which are limited, so far as my knowledge goes, to ovarian pain, polyuria (diabetes insipidus) and diabetes mellitus. I do not think "wetting the bed" in children has ever been credited to eye strain, being usually dependent on a local irritation. In three cases of ovarian pain, which Prentice relieved by eye treatment (i. e., by glasses and graduated tenotomies of the ocular muscles), removal of the tubes, ovaries and uterus had been performed in one (for pyosalpinx) and recommended in the other two. The operation in the first case had relieved the pain, but

great muscular weakness and nervous dyspepsia remained. In regard to the diabetes insipidus, one of these cases, which you will begin to think ran the gamut of functional nervous disturbances, had been for two years passing twenty-four pints of urine in twenty-four hours, and suffering from great thirst and anemia. There was no glycosuria. Eye treatment, which consisted in "developing" a latent muscular error and then correcting it by tenotomies, was resorted to, and after four years and a half the patient reported that the relief obtained was permanent. She had no symptoms of diabetes or ovaritis. These cases are reported in the *New York Medical Journal* for August 28, 1898. In the same journal (Oct. 2, 1897) Prentice makes the following statement:

"For some years in cases of diabetes mellitus and insipidus I have followed the practice of endeavoring to break down the ciliary impulse and lower the natural refractive condition of the eye, and whenever I have succeeded in doing so I have usually found an adequate diminution, and in some cases an entire disappearance, of the sugar, the thirst and the polyuria."

I have not, however, been able to lay my hand on a case of diabetes mellitus relieved by eye treatment. Certainly in the 40 per cent. which have an organic basis in cirrhosis of the pancreas the most rabid enthusiast would not expect to see any improvement from eye treatment.

The only case of which I have personal knowledge in which the eye treatment of diabetes mellitus has been given a trial is one related to me by our President and by Dr. John Maury. This patient is undergoing a treatment for some muscular defect at the hands of a disciple of Dr. Prentice, but from what I have heard is very far from being cured.

In considering the effect of eye strain on the muscular system, observations are confined almost entirely to facial expression and posture of the head. We are all familiar with the frowning and squinting up of the lids seen in astigmatism, due to the fact that these people see better when they squint. The seventh nerve being somewhat concerned in the actions necessary to overcome eye defects, the other muscles supplied by this nerve are also excited to activity, and frowns and wrinkles result. I can illustrate this by the change of expression, and incidentally the cure of strabismus brought about in one of my patients by the use of glasses (Figs. 1



Fig. 1.



Fig. 2.

and 2).* Eccentric posture of the head is, I think, usually due to a defect of the muscular system of the eyes. If one of a person's eyes tends to point up or down, it is sometimes easier for him to bring them comfortably to the same level by tilting the head to one side than by keeping the proper eye muscle in a constant state of contraction. This posture is exemplified in the case of a well-known practitioner of this city, and I have noticed it in quite a number of patients. In one of my patients it was satisfactorily relieved by dividing a too powerful superior rectus muscle. These eccentric poses of the head may be classified as follows (Colburn, *Oph. Record*, vol. 3, p. 188):

1. Head thrown backward. This is due to too weak superior recti (catophoria), permitting the visual axis to be elevated only by considerable effort on the part of the weak muscles. It is easier to tilt the head back.

2. Inclination of the head to right or left. Due to right or left hyperphoria.

3. Head bent forward, chin retracted. Due to anaphoria, or elevation of the visual axes by too strong superior recti.

* Reproduced through the courtesy of the *Memphis Medical Monthly*.

At the last meeting of the Western Ophthalmological Society, Stevens, who is the tenotomist *facile princeps* of today, in the course of a paper on the "History of Strabismus, etc.," mentioned the fact that this last condition of anaphoria predisposed, by the retraction of the chin and drooping shoulders which it caused, to consumption, and that tenotomy of the superior recti in these cases would prevent its development by correcting these physical defects. I have no comment to make on this observation.

Spasmodic contraction of remote muscles has been observed. In a case reported by Risley (*Univ. Med. Mag.*) a defective equilibrium of the ocular muscles, necessitating a tonic contraction of certain of them to overcome the defect, was associated with a contraction of certain muscles of the leg. Cure of the former was followed by relief of the latter.

Of the gastro-intestinal disturbances we have a few to consider. Chronic diarrhea was noted by Prentice, but as far as the intestines go constipation is more frequently encountered, not alone, but as one of several manifestations of a reflex neurosis. My own experience would not lead me to infer that such disturbances are common. In the stomach atonic (nervous) dyspepsia, and more frequently nausea and vomiting, are somewhat frequently seen. The latter is especially brought on by the use of the eyes, or by the wearing of ill-fitting lenses. In these halcyon days of the "eyes-tested-free" gentry we see the latter condition not seldom. Time will not permit me to recite cases, but we certainly cannot pass this subject over, as does a recent German writer, with the observation that in gastro-intestinal disorders, eye strain *gar nicht*. Sick headaches from eye strain are a common example that the contrary is true.

You are probably prepared for the statement that no system in the body bears the brunt of the burden in eye strain as heavily as does the nervous system. Functional, yes, even organic, nervous diseases from a to izzard are laid at its door. Insomnia, irritability of temper, vertigo, sick headache, chorea, epilepsy and insanity have all been ascribed, with grounds for the ascription, as results of defects in the ocular mechanism. I will only refer to a few of these disturbances in detail.

Headache is by far the most common symptom of eye strain, some ophthalmologists claiming that all headaches are due to eye

strain. I believe we are indebted to that celebrated neurologist and delightful novelist, Dr. S. Weir Mitchell, for first calling our attention to this fact. In the *Medical News*, April 28, 1894, Dr. Mitchell says: "There are many headaches which are due directly to disorders of the refractive or accommodative apparatus of the eyes. In some instances the brain symptom is often the most prominent and sometimes the sole prominent symptom of the eye troubles, so that, while there may be no pain or sense of fatigue in the eye, the strain with which it is used may be interpreted solely by occipital or frontal headache. The long continuance of eye troubles may be the unsuspected source of insomnia, vertigo, nausea and general failure of health. In many cases the eye trouble becomes suddenly mischievous, owing to some failure of the general health, or to increased sensitiveness of the brain from normal or mental causes."

As regards the character of headache that is due to this cause, Dercum says it is generally superciliary or frontal, sometimes occipital, and this is my own experience, with the addition of temporal pain, which is by no means rare. H. C. Wood (*Nervous Diseases and Their Diagnosis*, p. 306) says: "Although very frequently the facts connected with the pain are suggestive of its cause, yet the headache of eye strain has no fixed determinate character. It is usually frontal or in the region of the eye, but this position is not always selected. In a case reported by Dr. Wm. Thomson (*Med. & Surg. Rep.*, 1874) the headache finally assumed characters exactly simulating those of the most typical migraine, the paroxysms commencing with an attack of partial blindness involving half the visual field, followed by severe pain in the head lasting many hours, accompanied by nausea and general depression. In almost all cases the pain is greatly aggravated by the use of the eyes, and in the earlier periods of its history only follows such use; finally it may come on at all times, and often apparently spontaneously. It is apt to be very severe in the mornings after an evening spent at the theatre or other place of amusement, where the lights are very bright. Sometimes the pain is not confined to the head, but radiates down the back. The difficulty of diagnosis is often aggravated by the fact that the headache of eye strain is especially common in neurotic subjects, and that it not rarely coexists with head pain of other character."

To avoid the recital of cases, with which all ophthalmologists' case books are bountifully supplied, I will only say that while there is usually an apparent connection between use of the eyes and the pain, this has not always been so, nor has any one error of refraction or muscular equilibrium a "corner" on this symptom, though hyperopia is probably the most common causal error.

Of vertigo, that form associated with nausea and vomiting, known as "car sickness," and which affects people riding in a rapidly-moving conveyance, and especially if they are riding backward, is usually ascribed to defective balance of the ocular muscles.

We now approach those disturbances to which the greatest interest has attached lately, viz.: chorea and epilepsy, and which can be considered together. Inseparably associated with the efforts to connect these diseases and eye strain in the relation of cause and effect, are the names of Geo. T. Stevens and A. L. Ranney, both of New York. Stevens' book on *Functional Nervous Diseases*, which was the prize essay of the Royal Academy of Medicine of Belgium, and Ranney's recent *Eye Strain in Health and Disease* are largely confined to reports of cases of chorea and epilepsy treated by a series of graduated tenotomies for defects of the eye muscles, and in which most astonishing results are claimed to have been obtained. By invitation, Stevens presented a paper on the subject to the New York Neurological Society in March, 1887. The result of this was the celebrated "Stevens Commission," composed of three neurologists and two ophthalmologists, appointed by the Society to furnish Stevens a certain number of cases of epilepsy and chorea to treat, to observe the progress of the treatment, and to report the results to the Society. Many conditions were made, and the investigation begun under favorable auspices, to end in strife, discord and personalities. Stevens claimed that the conditions were violated and the patients would not remain under treatment, but in spite of all that they were benefited. The commission claimed to have complied with all the conditions, and that some cases were given up and others not improved. Stevens' assertions as to improvement were substantiated by the affidavits of several well-known neurologists and surgeons, but the investigation, as I have said, amounted to nothing. (*Journal of Nervous and Mental Diseases*, November, 1889.)

Next Ranney (*N. Y. Med. Jour.*, Jan. 13 and 20, 1894) took up

the subject. Working on the lines followed by Stevens, he out-Stevened Stevens and presented a most startling array of claims.

He thinks, and rightly, that an epileptic who is gotten from under the influence of the bromides without his epilepsy becoming worse, is benefited. Because in 26 epileptics he found muscular errors (i. e., not orthophoria) in all, he argued that heterophoria caused epilepsy—excluding, of course, organic epilepsy. But we know that probably no person in this room has perfect muscle balance, yet there are no epileptics among us, hence the presence of a heterophoria might be said to exclude epilepsy.

The results of Stevens and Ranney are thus summed up by Allen (*Journal of Ophthalmology, Otology and Laryngology*, Oct., 1898:)

“Of 29 cases of epilepsy treated for muscular trouble by Dr. Stevens, 14 were cured, 5 were improved and still under treatment, 1 died, 7 were temporarily improved, and 2 showed no improvement. In Dr. Ranney’s treatment 45 per cent. were cured, 42 per cent. were materially benefited, and in only 13 per cent. was no improvement manifested.”

I will crave your indulgence here while I give the history of two of Ranney’s patients:

“Chronic chorea of thirty years standing. A lady of 33, chorea since two years old. Twitching of both sides of the head and face, with sick headaches and contractures of the hands. She walked with a peculiar, unsteady and crab-like gait, ate with difficulty, pain between the shoulders and over the first lumbar vertebra, and chronic constipation. Memory and mentality perfect, speech spasmodic and unintelligible. In May glasses were given and an operation done on the eye muscles. In the fall a second operation. Shortly after that she could thread a needle and pass her fare to the streetcar conductor. Her speech, gait and swallowing had so improved that she considered herself well. The improvement persisted after seven years. No drug was used in the treatment, but static electricity was applied for the contractures of the hands.”

“Woman of 30. Epilepsy for three or four years. In spite of bromides seizures would occur at intervals (one or two a month, or oftener) and often last one or two days. March 12, 1893, bromides stopped (she had a bromide eruption) and eye treatment, glasses and tenotomies begun. No seizure till August, when she left off her glasses and had twenty-five. She resumed them, and at last report, in 1896, had had no further seizures.”

Frederick Peterson took up the cudgel with Ranney. He analyzed Ranney’s cases to disprove his claims and finally wrote an article on the improvement noticed in epileptics on withholding bromides, ascribing the good results to this, instead of to eye treatment.

Casey A. Wood, of Chicago, a most competent and conscientious observer, has also written on this treatment of epileptics (*N. Y. Med. Journal*, Aug. 7, '94), and reports some good results from the use of glasses and partial tenotomies. But he says, "I do not think we are justified in asserting that an organ that performs all its functions properly, that so far as the owner is concerned works in perfect order, can be held responsible for such a marked and grave train of symptoms as constitute the so-called idiopathic epilepsy." Again, "Whenever I am consulted about the eye treatment of an epileptic who is not aware of the condition of his eyes, who can read with ease in a railway train or with artificial light for hours, who never has any other asthenopic symptom, frontal headaches or other ocular reflex troubles, I regard *his* eye treatment as a sort of experiment that I would prefer not to make, and I should further be inclined to regard any favorable results obtained from the correction of eye defects (*which of course are always to some degree present*) as probably due to other influences." He further cites the fact that in times past the following operations have been advocated for the cure of epilepsy, viz.: tracheotomy, setons, ligature of the vertebral arteries, trephining, oophorectomy, circumcision, castration, amputation, the actual cautery, the resection of stray scars, etc., etc., all operating by their powerful mental effect on the patient. All of which tends to show the force of Oliver Wendell Holmes' statement (*Medical Essays*), "If I wished to show a student the difficulties of getting at truth from medical experience, I would give him the history of epilepsy to read."

I have personally had no success in the eye treatment of epilepsy.

In closing, let me say that no error of refraction or muscle balance stands alone in causing eye strain and its remote effects, and further, that to exclude eye strain as a cause of reflex disturbance, an examination is not sufficient. The refraction must be corrected under a mydriatic, and proper glasses worn for at least a month before a positive conclusion can be reached.

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DR. E. E. HAYNES, a former member of the LANCET staff, has bought a half interest in Dr. T. J. Crofford's infirmary and formed a partnership with Dr. Crofford for the practice of medicine.

THE ANTISEPTIC AND ELIMINATIVE TREATMENT OF TYPHOID FEVER.*

BY T. VIRGIL HUBBARD, M.D.

ATLANTA, GA.

The fact that five hundred thousand people in the United States are annually stricken with typhoid fever, and the fact that at least fifty thousand of this number are sent to premature graves as results of this disease, are sufficient reasons, in my opinion, for bringing it before this association for discussion, to say nothing of the unpleasant sequelæ with which it often leaves its victim as a living monument to its visitation. While there may be some room for justly criticizing the size of dose and frequency of administration advocated by Dr. Woodbridge, there can be no doubt that to him belongs the honor of having combined a number of drugs for the treatment of typhoid fever which, if systematically and continuously used, will reduce the mortality of this disease. While I have used the same drugs, but in larger doses and not so frequently administered, I am not prepared to say that his method of administration is not the better; for I have never used it that way, and am not willing to criticize his plan before having tried it.

I shall say no more about the etiology, pathology and symptomatology of this disease than is necessary for an intelligent discussion of its treatment.

I am fully aware of the fact that the views herein expressed are at variance with some of the leading textbooks of today, and also differ from the teaching in most of our medical colleges; but "because a theory of treatment is *new* it is not necessarily false, and because it is *old* it is not necessarily true." The history of our profession has repeated itself too often to deny the truth of the above proposition. With respect to hoary precedent and textbook authorities, and touching the practices of antiquated eld, it may be as truly said of medicine, and perhaps truer, as it is of law, that in the doctrine there may be logic, but in the letter there is frequently death. Many men have been killed with abundant weight

* Read before the Georgia Medical Association, Macon, April, 1899.

of authority, and tombstones cover much loyalty to precedent and authentic error.

So long as we are bound to this vicious heredity, either by filial affection or antiquated respect, following in the footsteps of our forefathers, and adhering to the same practice, and thus committing the same errors, there can be no real progress in medicine. Who doubts that venesection, now relegated to a deserved grave of oblivion by the rapid progress of scientific and rational medicine, was at that time as enthusiastically advocated and as vigorously defended as is the cold water treatment of typhoid fever today? *It is notably true that the most conspicuous and pronounced opponents of the antiseptic and eliminative treatment are almost without exception those men who have never systematically used it in even a limited number of cases, thus placing themselves in the absurd position of condemning this treatment without ever having given it a fair trial.*

If the mortality of this disease is not to be taken into consideration in estimating the value of this or any other method of treatment, but we are to accept the dictum of those who oppose it on the uncertain evidence of their theoretical disapproval, when may we expect a lower death rate? If this same theoretical skepticism had existed since the discovery of vaccination to the present time, how many human beings would have ever been benefited by Jenner's immortal discovery? Those who hold opposite views may produce eloquent arguments and construct some beautiful theories, but *argument is not evidence, and theory is not fact.*

The only earthly tribunal whereby the efficacy of any therapeutic measure may be honestly and fairly adjudged, is at the bar of mortuary statistics, and upon this indubitable evidence and this alone, we are willing to stand or fall. We are willing for this treatment to undergo the crucial test of experience, and let clinical evidence decide its truth or its falsity.

It is far from my purpose to, in any sense, discount the value of water as a therapeutic measure in the treatment of fevers, when properly used; but, as often happens, is it not possible that the pendulum has swung too far, and the Brandt enthusiasts frequently rely on the use of water alone, to the exclusion of other valuable agents? So eminent an authority on hydrotherapy as Dr. Simon Baruch says that cold water cannot vie with coaltar antipyretics for the reduction of temperature, and that the reduction of tem-

perature alone does not fulfill the therapeutic indication, but that the good effects derived from water are due to the shock to the general nervous system, thus stimulating all of the vital organs to greater functional activity.

H. A. Hare and C. A. Holder have examined the statistics, and estimate that the mortality of typhoid fever today, the world over, is not more than fifteen per cent. The same authorities also state that "the Brandt treatment does not shorten the attack, but probably prolongs it. Relapses are much more frequent under it; hemorrhages are more frequent. The frequency of perforation is not diminished." They also state that "the cold bath is evidently responsible for the saving, at the most, of but two and one-half per cent., and it is also evident that this two and one-half per cent. is saved by the favorable effect of the bath on the nervous system, circulation, respiration and toxemia."

Admittedly, a germ disease in the intestinal canal, the source from which general infection takes place, does it not seem that the removal of all pathogenic bacteria from the intestine, so far as possible, and the elimination from the system of their lethal products, would be the most rational therapeutic indication? What physician or surgeon, if called to treat a case of septicemia produced by a portion of retained placenta, would, in the beginning of treatment, fail to remove the original source of infection? Does not the same principle, though perhaps to a less extent, apply in typhoid fever? To just what extent intestinal asepsis is reached, by the administration of drugs, I do not know; but calomel and guaiacol, to say the least, do not furnish a very favorable soil for the development of microorganisms. If thorough disinfection of the alimentary canal were accomplished, it would be, in my opinion, the least important of the good effects from the administration of mercury; but as demonstrated by recent physiological experiments, it is to stimulation of the depurative function of the liver and the other emunctories that we may look for the explanation of the valuable therapeutic effect of this drug. We should also not lose sight of the reciprocity existing between the function of the liver and kidneys, the impairment of one directly influencing the activity of the other. Urea, the biochemical product of the metabolic activity of the liver cells, is, as well known, the most natural, as well as the most efficient diuretic. In typhoid fever there is a pro-

found toxemia, and it is to the functional activity of the kidneys that we may look for valuable assistance in successfully combating this systemic condition. The importance of the kidneys as emunctory organs in this disease is shown by the fact that the urine contains the germs and their toxins, and will convey the disease. Unfortunately, bacteriology and pathology have not reached that degree of perfection where they can positively exclude, from typhoid fever, the presence and influence of other bacteria, and notably the colon bacillus, on the causation, course, and final termination of this disease. As pointed out by Thistle, the intestinal ulceration once established acts as an infection atrium, through which, not only the typhoid bacillus, but any other bacteria as well, may enter the system, and becoming more virulent, because of the presence of the typhoid germ, add to the seriousness of the disease by producing a mixed infection—another strong reason why purgative medicine is indicated. Abundant clinical evidence exists to establish the fact that an individual infected with syphilis can tolerate from two to five times the amount of mercury daily, without any deleterious effect, that he could take if free from the disease, the amount depending on the stage and virulence of the infection. A number of physicians will testify to the remarkable tolerance of the system to mercury, when under the influence of the poison of diphtheria, some having given as high as three hundred grains of calomel in one week to an adult with diphtheria without producing salivation or violent purgation. I shall not attempt to offer any explanation of why this is so, but the fact remains, and mercury is considered a specific for syphilis, and up until the time of discovery of antitoxin it was probably relied on more than any other drug for the treatment of diphtheria. I have given a half grain of calomel to a typhoid patient every two hours for forty-eight without producing salivation or purgation. While the same tolerance does not exist in typhoid fever that syphilis and diphtheria furnish, and I do not claim the same specific controlling influence, yet with the above facts before us, and taking into consideration the etiology and pathology of the three diseases, does it not seem reasonable to, at least, assume that there is some physiological antagonism between the disease and mercury, which may account, to a certain extent, for its controlling influence? While calomel may have some specific antagonistic influence on the germs and their toxins, it is chiefly

of its stimulating effect on the excretory function of the liver and kidneys that I wish to speak. The liver, situated as it is between the mesenteric and systemic circulation, receiving from the spleen and intestinal canal the blood laden with the products of digestion imperfectly prepared, in many instances, for assimilation, and also laden with any pathogenic bacteria and their toxins which may have been absorbed from the intestinal mucosa, acts as a sentinel and determines which shall enter the general circulation, and which shall be arrested for elimination or transformation. The importance of this function of the liver cannot be overestimated, as it has been conclusively proven that it arrests, transforms, or eliminates organic alkaloids, pathogenic bacteria and their toxins.

The treatment I have used, as suggested to me by Dr. Stockard, of Atlanta, consists in the administration of the following: Calomel, $\frac{1}{2}$ grain; guaiacol carbonate, 2 grains; podophyllin, $\frac{1}{20}$ grain; given in one capsule every two hours for twenty-four to forty-eight, depending on condition of bowels. I continue this until I have secured four or five intestinal evacuations for two successive days, and then I leave off the calomel and add $\frac{1}{2}$ grain of menthol to the guaiacol and podophyllin. If, after discontinuing the calomel, there is any tendency, as there frequently is, of the bowels to become inactive, I administer a small dose of salts or hunyadi water in the morning. I always endeavor to secure at least two or more evacuations daily, depending on the temperature and tympanites. If, after four or five days of treatment, the temperature remains high, or rises after having remained stationary, I again resort to the calomel as above for twenty-four hours, and it invariably reduces the temperature and results in a general improvement in the patient's condition. I continue the administration of the guaiacol, menthol and podophyllin throughout the disease. I cannot say just what therapeutic effect may be attributed to menthol or guaiacol carbonate, other than their antiseptic properties, but as guaiacol has for a long time been regarded as a valuable remedy in the treatment of tuberculosis, is it not fair to at least assume that when absorbed into the blood the guaiacol in some way neutralizes or antidotes the toxins and perhaps inhibits the growth and development of the specific bacillus? Regarding the variation in size of dose and frequency of administration of the calomel, the common sense and good judgment of the physician must be relied

on for the successful administration of this treatment, and I desire to emphasize the fact that timidity or skepticism on the part of a physician will too often result in failure, but the continuous and apparently heroic administration in the beginning of treatment is the *sine qua non*, and will invariably be rewarded by a favorable modification of the course and symptoms of typhoid fever. I would advise occasional sponging or ablutions of cold water for the good effect it produces on the peripheral circulation, the shock to the general nervous system and the subjective sensation of the patient, but for the reduction of temperature it is a useless procedure, for after the first few days of the disease antipyretics of any character are not needed.

Time forbids me going into detail regarding diet and the general hygiene of the sick room, but I will say that the patient can retain, digest and assimilate a larger amount of nourishing food with this treatment than with any other, and I am in favor of giving more food than typhoid patients have been accustomed to receive under the old regime. With a view to obtaining the experience of others in the use of antiseptic and eliminative medicine, I sent out a few letters to physicians of known experience and reliability, the tabulated results of which I give below. I received replies from five physicians reporting 85 cases and adding my own, gives 97, with the average duration of the disease in all the cases of $14\frac{2}{5}$ days. Dr. W. E. Fitch, of Savannah, who reported 25 cases, had one death, the only one of the 97 cases, and it was clearly attributable to the conduct of the mother of the patient, who gave medicine without the doctor's knowledge or consent, and after temperature, pulse and respiration had returned to normal, a consultation was desired by the mother and refused by Dr. Fitch. He withdrew from the case; another physician was called, stopped the doctor's treatment, and gave quinine and whiskey, and had a funeral five days after. This case was certainly not a fair test of antiseptic treatment. The other 96 all recovered; but it is not so much the number of cases as the duration of disease that I wish to direct attention.

The average duration of my cases was sixteen days, and Dr. Stockard of Atlanta reports a duration of eleven days in 25 cases. It is a notable fact that stimulants are rarely ever required with this treatment. Delirium and complications are practically unknown.

But for want of more space I would report the histories of some of my own cases, showing the early decline and low degree of temperature throughout the disease; but will say, in almost every case where the treatment is begun within eight days of the beginning of the disease and systematically carried out, the temperature will almost invariably touch normal at the end of a week or ten days.

In the August issue of the *Charlotte Medical Journal*, 1897, Dr. Woodbridge reports 7698 cases, with 150 deaths—a rate of $1\frac{94}{100}$ per cent. mortality—with the average duration of about twelve days. We must take into consideration the fact that this was all the deaths from the disease reported by the physicians, and in a great many instances the treatment was in the hands of those inexperienced and unaccustomed to its administration, and not instituted until late in the disease, when fatal complications had already set in. There are only seven of the fatal cases in which treatment was begun prior to the eighth day of the disease. Can the most enthusiastic advocate of any other treatment show such a low mortality? for the death rate is the solid foundation upon which the superstructure of any treatment must finally rest. *The two important facts to be emphasized in this treatment are, to begin it as early as possible, and keep it up continuously until the disease is under control.*

As to whether typhoid fever can be aborted or limited in its course by any therapeutic measure, the above statistics speak in no uncertain terms. I cannot say that there are no other drugs or combination of remedies that will accomplish the same results, for I have not tried them; but I do know that the treatment outlined above will cure quickly, safely and pleasantly, and is economical of cost and easy of administration.

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EDITORIALS.

THE SURGICAL TREATMENT OF PULMONARY TUBERCULOSIS.

It is a surgical axiom to favor the escape of pus with the least possible delay wherever it may be found. This applies to the lungs with even greater force than any other organ, for the reason that mixed infection, through the entrance of air, is most liable to take place here. The question now arises, what is consumption of the lung? The misconceptions existing among even well-informed medical men on this subject calls for an answer. To state it briefly: Consumption, as we at present know it and usually see it in the human family in the more advanced stages, is a *mixed infection*. Primarily, the tubercular bacilli cause proliferation in the fixed tissue elements with the production of epithelioid and giant cells, followed by an inflammatory reaction and exudation of leukocytes. Once formed, a tubercle undergoes caseation and sclerosis; the latter is nature's curative or conservative process, the former is a coagulation necrosis, which, when once it occurs, becomes a suitable culture bed for numerous other microorganisms—mixed infection. Simple tuberculosis of any portion of the body, and particularly of the lung, seldom kills a patient. It is the mixed infection that causes the great mortality, infection with the various pus-producing organisms, among which the streptococcus plays no very unimportant role. This being so, should we not attack the

tuberculous lung the same as any other abscess cavity? Murphy says: "While drainage of large tubercular cavities has not given satisfactory results as far as cure is concerned, I feel it is the surgeon's duty to resort to this operation very frequently as a palliative measure, as it relieves these great sufferers of their most distressing symptoms, viz.: cough and expectoration." He might have added that the danger of infection is also mitigated. We cannot help but subscribe to this statement of Murphy's. It seems to us that there is little to expect from tuberculinum Kochii, etc., etc. These preparations have been used early with practically no results, and when used late the deadliest element in the disease, the mixed infection (pyogenic and saprogenic), is not controlled. This has been fully confirmed by the work of Koch, Trudeau, Baldwin, Davies and others. Anyone with any degree of hospital experience appreciates the almost utter hopelessness of these advanced cases. Remedy after remedy is tried in vain, and while it must be confessed that bacteriology and hygiene have given us much to, in a measure, prevent consumption, the bald fact that we have not a cure for a disease which is carrying off yearly more than all other diseases put together, stares us in the face. That prevention is better than cure is perfectly true, but a cure is absolutely necessary, and will continue to be so for years and years to come. And if, in the face of these facts, we turn our attention to surgery for assistance, it is pardonable. Is it not history repeating itself? Did not surgery dispel the terrors of tuberculosis of the peritoneum by simply opening and flushing the abdominal cavity? Then why should the thoracic skeleton bar the way to surgical attack upon diseased lungs any more than the calvarium when an abscess or tumor has been diagnosticated in the brain, or the abdominal walls when tubercular peritonitis has been diagnosticated within the belly? In explanation of the remarkable results following simple laparotomy for the cure of tubercular peritonitis, there have been offered the entrance of light and air into the peritoneal cavity. Marked congestion in and about the tuberculous nodule, due to the withdrawal of fluid and flushing of the abdominal contents, leading to round-cell infiltration and rapid fibrosis, which causes a squeezing out of existence of the tubercles, so to speak, and lastly, the reaction to the trauma brought about by the operation, all probably play their part in the curative pro-

cess, and apply just as fittingly in operations upon other parts of the body for the relief or cure of tuberculosis, the lungs not excepted.

Gustav Simon, in the pre-antiseptic era, resected portions of several ribs to allow retraction of the chest and healing of old cavities. This work is usually attributed to Estlander, who, no doubt, put the method on a more scientific basis, but to Simon belongs the credit of priority.

But going back to antiquity, to the days of Hippocrates, and even before his time, opening of the chest wall was a well-established operation. Perforation of a rib was then a favorite procedure, although the knife and cautery were not unknown.

Many cases are cited by Estlander, Carl Beck, Murphy, Kœnig and others, to prove how successfully, during the Hippocratic era, these operations were performed. Hippocrates, also, laid great stress upon frequently washing the patient with warm water before the operation was to be performed. Does this not account for his great surgical success, and does it not also seem to be the dawn of aseptic principles? Yet, strange to relate, for over twenty-three centuries this admirable knowledge seems to have been lost.

Carl Beck (*Trans. Pan-Amer. Med. Cong.*, vol. 1, p. 667) operated on two cases of empyema when consumption had been positively diagnosed, both recovering. And later on, in discussing the question, Beck asks: "What harm can be done by a resection? A consumptive has nothing to lose, and everything to gain." While we must acknowledge the correctness of Beck's suggestion, we must, at the same time, express disapproval of it. It seems to us that this very suggestion is one of the main causes of failure to obtain consent to an operation at any time. The operations for appendicitis, empyema, etc., etc., are not looked upon any more as *dernier ressort* procedures; on the contrary, they can almost be called routine, since they are founded upon well-established surgical principles. And if well-defined surgical principles could raise abdominal section for tubercular peritonitis and appendicitis to the height it now occupies in the minds of the laity, they surely can do as much for those suffering from consumption of the lungs by offering them for the present at least palliation—and let us hope that with increasing experience and improved technique, palliation will be supplemented by cure.

While many American surgeons have been prominent in advancing the sum total of our knowledge of the surgery of the chest, it has remained for J. B. Murphy, of Chicago, to clearly define, by aid of a series of clinical and experimental data, the surgical treatment of that disease of all diseases—phthisis pulmonalis. One has to but glance at his address before the last meeting of the American Medical Association, held in Denver, to become conscious of the vast amount of labor, research and experience which it embodies, and what effects it may have upon chest surgery in general, and phthisis pulmonalis in particular. The question of priority of method, principle or idea should not be raised for a moment, for Murphy himself shows that the operation is pre-Hippocratic.

Perhaps the greatest barrier to surgery of the chest has been the apprehension of pneumothorax; but this, according to Hunter McGuire, is due to the small openings usually made—"for," he says, "pneumothorax and emphysema of a diffused kind are not often seen in gunshot wounds, though occasionally happening. The free opening made by the projectile sufficiently explains this fact." With a full knowledge of this fact, Murphy vigorously counsels against small openings being made in the pleuræ, and especially valvular openings. He says that the most dangerous manifestations of his experiments and experience were the result of small openings "allowing the air to pass in and out with some opposition, thus making the mediastinal septum flap to and fro like a sail in a lull." In twenty years experience in emergency surgery of the large hospitals he has observed traumatic pneumothorax as a cause of unpleasant symptoms in but two cases. In both of these the wounds were small. Should pneumothorax occur, however, it can readily be controlled by either enlarging the opening made in the chest or by completely closing it. Large openings should therefore always be made when made at all. Exploratory punctures, so widely practiced in other portions of the body for the detection of pus, are not applicable to the lungs except at the time of operation, since they are liable to produce fatal hemorrhage, infection of pleura, gangrene and pneumothorax. Skia-graphy is here of the greatest possible assistance, particularly when large cavities, dense adhesions or areas of consolidation are present.

Murphy's method of inflation of the pleural cavity with nitrogen gas is applicable in those cases where there are no pleural

adhesions. The cavity is thus compressed and drained through the bronchi, the lung defunctionalized and quiescence produced, all of which aid nature to heal the lung and produce a cure.

Gas inflation of the pleural cavity (according to Murphy) for the relief of pulmonary tuberculosis was first advocated by Carron. When compression cannot be successfully carried out on account of the adhesions or consolidations, or both, which may be present, sub-periosteal resection of several ribs may be made, the parietal pleura separated from the chest wall sufficient to allow of free retraction, aspiration practiced, and if pus is found direct incision into the lung made.

Bleeding is to be controlled by packing or direct catgut sutures. Irrigation is to be avoided. The pleura should be brought together by suture, leaving room for a good drain.

Of the two methods of treatment, compression of the lung by the artificial production of pneumothorax appeals to us most, but to be effectual it should be done early in the disease before adhesions and consolidations have formed, thus making early diagnosis the greatest element in the cure of the disease. The same applies to the more formidable operation of resection and drainage. It would be useless to resect portions of several ribs when an entire lung is already honeycombed. To be of service the operation should be done when cavern formation is limited to a single lobe or a portion of it.

Under these two methods of treatment Murphy reports results that are almost startling, and as these reports emanate from a man high in authority upon everything pertaining to surgery, as well as of vast experience and exceptional skill and ability, we are ready to accept them in the anticipation that his fondest hopes, the alleviation and cure of pulmonary consumption, may be realized.

THE date of the Chicago meeting of the Mississippi Valley Medical Association has been changed by the Executive Committee to October 3-6, to coincide with the date of the Autumn Festival and laying of the corner stone of the Federal building by President McKinley. A rate of one fare for the round trip on the railroads will obtain, and a long time limit allowed.

THE MEDICAL LAW IN THE STATE OF TENNESSEE.

The General Assembly has passed the following amendment to the law regulating the practice of medicine:

Be it enacted by the General Assembly of the State of Tennessee--

SECTION 1.

That the tenth section of said act of 1889* be so amended as to insert after the word "conferred" in the fifth line of said section the following words, to wit: "and that the clerk hereafter, beginning with the first Monday in July next, and at the end of every six months thereafter, report to the Secretary of the Board of Medical Examiners all such registrations in his office, together with a list of the deaths and removals from his county of those physicians who have registered or may hereafter register in his office, for which service the clerk shall be paid by the Treasurer, out of the funds of the Board of Medical Examiners, ten cents for each name registered."

SECTION 2.

That the third section of the chapter 109 of the Acts of 1891, and being amendatory of chapter 178 of the Acts of 1889, be so amended as to insert after the word "dollars," in the eleventh line of said third section, the following words, to wit: "and all such fines for offences under this act shall be paid over to the Treasurer of the Board of Medical Examiners, to constitute a part of the fund of said Board."

SECTION 3.

That the provisions of this act shall not apply to physicians and surgeons of other States who may be called by any reputable registered practitioner in this State into actual consultation in regard to some case under his supervision and care.

SECTION 4.

That students graduating in medical colleges outside of the State of Tennessee shall not practice medicine in this State without being examined by the State Board of Medical Examiners, except as provided in section 3 of this act.

SECTION 5.

That section 3 of said chapter 178 of the Acts of 1889 be amended by inserting after the word "therapeutics," in the eleventh line of said section, the words "materia medica and practice."

SECTION 6.

That section 12 of said chapter 178 of the Acts of 1889 be and is hereby amended by striking out "\$10.00" in the twelfth line of said section and substituting "\$5.00."

SECTION 7.

That the grand jury of each county in this State is hereby given inquisitorial power over all offenses and violations of this act and those acts amended by this act, and the circuit and criminal judges shall give the same in their charges to the grand juries.

SECTION 8.

That chapter 61 of the Acts of 1897, purporting to amend the Acts of 1889 and 1891 hereinbefore mentioned, be and the same is hereby repealed.

SECTION 9.

That this act take effect from and after its passage, the public welfare requiring it.
Passed April 4, 1899.

JOS. W. BYRNS, Speaker of the House of Representatives.
SEID WADDELL, Speaker of the Senate.

Approved April 6, 1899.

BENTON McMILLIN, Governor.

* The existing act can be found in Polk's Medical Directory.

On the advice of their attorney the State Board of Medical Examiners refused licenses to those applicants who did not take the examination. Mandamus proceedings were brought by the students, but were dismissed on a technicality. The constitutionality of the bill will be contested by the Board.

It is a great pity that our legislators are so short-sighted as to lend their support to a measure which is as distinct a step backward as this is, and the only thing for us to do is to interest ourselves in politics sufficiently to ascertain the attitude of candidates on these questions and vote for those who will favor a proper law regulating the practice of medicine. We would suggest an alliance with the lawyers, and pledge the candidates for whom we vote to sustain these and a legal practice bill. Every physician can control a certain number of votes among his relatives and friends, and not until we show political strength can we impress our wishes upon the aggregation that presumes to represent us at Nashville.

At the meeting of the State Medical Society on the 12th, Dr. J. A. Witherspoon, in the address of welcome, deprecated the action of the Legislature. The Society adopted a resolution asking the Legislature to desist from further action. It was possibly due to this that the Chambers bill to abolish the State Board of Medical Examiners did not pass.

The Nashville physicians certainly manifested very little activity during the time the matter was under consideration, and especially would we like to know why the Vanderbilt professors did not endeavor to stop the movement among their students. Are they opposed to the bill? Do they fear for their graduates to appear before an impartial board?

The Memphis Medical Society had already expressed themselves on the subject to all of our representatives, but Eldredge, one of our Senators, spoke and voted for the new bill. Please, gentlemen, remember that W. B. Eldredge is not entitled to the support of medical men. Caldwell, our other Senator, was "not voting." We hope to publish the vote of our representatives later.

At the meeting of the Memphis Medical Society April 18th the subject came up for discussion. The only member of the faculty of the Memphis school at the meeting expressed himself as in favor of the bill.

It is to be regretted that any of our law has been repealed, but

we feel that what has been done will not affect the profession generally as much as it will react on the Tennessee schools. Nevertheless we have had a narrow escape, but if this narrow escape will stimulate the physicians to interest themselves in politics to a sufficient degree to protect themselves, it will not have been endured in vain.

REPORTS OF SOCIETIES.

PROCEEDINGS OF THE MEMPHIS MEDICAL SOCIETY.

STATED MEETING, MARCH 21, 1899.

DR. B. F. TURNER, President.

The President presented a patient suffering with *Aphasia from a Cerebral Hemorrhage*. One and a half years ago the patient, a man, aged 40, had a stroke of apoplexy, with complete right hemiplegia, including the face. He was admitted to St. Joseph's Hospital comatose, and with stertorous breathing. A diagnosis of hemorrhage at the base of brain was made. In two days he regained consciousness, but had great difficulty in swallowing, and aphasia. The power gradually returned to the right side, till now he can walk and use his arm very well. Contractures of the right hand persist. Deglutition is normal, but he cannot whistle and cannot pronounce labials. He apparently knows what he wants to say, but cannot say many words unless they are said to him, when he can repeat them. The lesion is, in all probability, cortical—a clot, and located in the third left frontal and first left temporal convolutions. The clot, which at first probably covered the entire motor area, was thickest at the inferior extremity of the fissure of Rolando. This portion of the clot is slowest to be absorbed, and doubtless has, by this time, effected permanent changes in the brain tissue. There is possibly a sort of vicarious action of the centers on the right side of the brain. The patient has had to learn speech anew. If a diagnosis could have been accurately made at first, surgical interference would have been of great benefit.

Dr. E. C. Ellett read a paper on the *Remote Effects of Eye Strain*. (See p. 241).

Dr. G. G. Buford thinks that all of the remote disturbances caused by eye strain act through upsetting the digestive apparatus.

This may be disturbed by any unpleasant extraneous influence. The circulatory disturbances result in the formation of leucomaines, and this would easily explain the cases of urticaria.

Dr. E. P. Sale thinks too much stress is laid on eye strain as a cause of nervous disorders. He had the opportunity of observing a case of epilepsy under Dr. Stevens' treatment, and the child became much worse.

The President recalled the fact that embryologically the eye is a process of the brain, and it stands to reason that ocular irritation will readily affect the nervous centers. Any "nagging" at the nervous system, as by a painful corn, can, in time, bring on various functional nervous disorders, and he thinks that we are but on the verge of a greater realization of the importance of eye strain as a cause of remote disturbances. The case of diabetes to which the essayist referred is dying. He mentioned a case of chorea which was cured by wearing glasses.

Dr. Richmond McKinney read a paper on *Hypertrophy of the Pharyngeal Tonsil*. Attention was called to the importance of the condition, some historical notes, its usual disappearance at puberty, the association with hypertrophy of the faucial and lingual tonsils. The condition was held to be less common in this than in other localities, though this may be due to the fact that it is overlooked. The treatment is by operation, preferably the curette, and under general anesthesia. Ether is the safest anesthetic. An illustrative case was reported.

Dr. Buford mentioned as symptoms the narrowed nostrils and contracted chest.

Dr. A. R. Porter has secured uniformly good results from operation, in which he is a firm believer.

Dr. Sale has noted the bad effect on the development of the child and the production of asthma and other disorders. He is in favor of the operation.

Dr. Ellett did not think the curette always applicable, as sometimes the growths were quite tough and required the use of cutting forceps. As to cause, climate does not seem to be of much consequence, but the strumous diathesis is.* He thinks 75 per cent. of the cases of nose and throat disorders in children are due to adenoids. As for the anesthetic, ethyl bromide is the ideal one.

* See editorial in the LANCET for April.

Dr. Sale reported a case of *Exophthalmic Goitre*. The patient was a woman recently confined. She was dropsical during the latter part of her pregnancy, and presented uremic symptoms. After delivery the attendants moved her too much and brought on a post-partum hemorrhage. She made a good recovery and was dismissed in two weeks. She was then taken with nervous symptoms, sweating, and precordial pain, and after three or four weeks a convulsive seizure. This was followed by the development of exophthalmus, goitre, tachycardia—in other words, exophthalmic goitre. She was put on hemabroids and has, either *post hoc* or *propter hoc*, made most gratifying progress.

STATED MEETING, APRIL 18, 1899.

Dr. G. G. Buford reported a case of erysipelas in a child, commencing at the umbilicus and extending over the whole body, affecting one portion after another. Recovered.

Dr. Alexander Erskine also saw the case and thought it erysipelas.

Dr. Edwin Williams reported a case of epididymitis occurring in a patient after the passage of a sound. There was no discharge, and the sound passed through without much resistance.

Dr. F. D. Smythe thought it not an uncommon occurrence, and related several cases similar to the one above.

Dr. F. S. Raymond reported a case that simulated appendicitis. A woman who had been married six years, though never pregnant, was seized with severe pain over the appendix, with symptoms of peritonitis, and a tumor formed in the right side about the iliac crest. The symptoms lasted for three weeks and suddenly disappeared. He had a consultation in the case, but could not find the cause. The tumor was aspirated and nothing found.

Dr. Smythe thought it ruptured tubal pregnancy.

Dr. Erskine thought it hysteria.

Dr. Erskine reported a case which looked like a full-term pregnancy, and on account of the extension and complications consequent thereto it was decided to cause miscarriage. When labor was induced there was not much fluid, and the fetus was only in the fifth month. After the labor the symptoms increased, temperature ran higher, and it was decided to open the abdomen, which was done by *Dr. Maury*. A large cystic tumor was found, and on aspiration it contained pus. The pus sac was evidently the cause of the trouble. The case terminated fatally.

PROGRESS OF MEDICINE.

CHOLECYSTITIS, A CLINICAL REVIEW OF TWENTY-ONE CASES.—Lucius W. Hotchkiss (*Annals of Surgery*, April, 1899) calls attention to those cases of cholecystitis where colic is absent or not prominent; to the greater frequency of cholecystitis than cholangitis as a complication of cholelithiasis; to those cases of stone where there is a dilatation behind the stone allowing it to temporarily escape back, producing the condition known as intermittent obstruction. In five cases of impacted stone with distended gall bladders none contained normal bile, and three contained bacilli coli commune.

Where obstruction of cystic duct and infection of gall bladder occurs the result is an acute cholecystitis, usually with the following symptoms: Pain over gall bladder from ninth to tenth costal cartilage and sometimes over larger area, tenderness, pear-shaped tumor moving up and down with respiration, irregular temperature, rigidity of upper part of right rectus muscle, prostration, jaundice sometimes, sometimes persistent vomiting. Sometimes in absence of other physical signs, lateral pressure on ribs may elicit deep pain in hepatic region in impacted stone.

Lesions vary from simple catarrhal inflammation up to gangrene and ulceration with perforation.

Contents of gall bladder may be pus, muco-pus or mucoid.

Resolution may be complete, or gall bladder be left chronically inflamed, or adhesions may form around it, or it may become obliterated.

He is impressed by the frequency of mistaking cholecystitis for appendicitis.

He has abandoned exploratory puncture, and now makes a small abdominal incision.

In his 21 cases—12 operated on, 4 deaths, in 3 of which there was septic peritonitis before operation; 9 not operated on, 1 death. Gall stones found in eight cases, and in remaining 4 evidences of cholecystitis. Obstruction commonly in cystic duct. Typhoid fever preceded one attack.

BIRTH OF SECUNDINES.—Ervin A. Tucker (*Am. Gyn. & Obst. Jour.* vol. 12, nos. 5 and 6), makes a clinical study of the relative frequency of methods of birth of the secundines and of the relations of these methods of birth to hemorrhage, basing his conclusions on the observations of 2710 cases, 2561 of which were by Credé's method and 149 spontaneous. He finds :

- 1st. The order of frequency of placental birth, as observed clinically is :
 1. Edge first fetal surface out—most frequent.
 2. Fetal surface first and out.
 3. Edge first maternal surface out.
 4. Maternal surface first and out.
 5. Edge first—least frequent.
- 2d. The same order of frequency as above obtains when the Credé method of expression is used.
- 3d. The order of frequency of spontaneous placental birth is :
 1. Edge first fetal surface out—most frequent.
 2. Edge first maternal surface out.
 3. Fetal surface first and out.
 4. Maternal surface first and out.
 5. Edge first—least frequent.
- 4th. The birth of the fetal surface out is favored by :
 - a. Credé method of expression.
 - b. Maternity (labor at full term), and
 - c. Primiparity.
- 5th. The birth of the maternal surface out is favored by :
 - a. Spontaneous expression of placenta.
 - b. Prematurity of labor, and
 - c. Multiparity.
- 6th. The birth of the edge first (both surfaces out) is favored by :
 - a. Credé method of expression.
 - b. Prematurity of labor, and
 - c. Primiparity.
- 7th. The birth of the edge first (without regard to the surface out) is favored by :
 - a. Spontaneous method of expression.
 - b. Maturity, and
 - c. Primiparity.
- 8th. The frequency of the birth of the fetal surface out is, as observed clinically, more than twice that of the maternal surface out.

The more accurate division of presentations into five classes here used enables us to bring the widely-varying statistics of Duncan and Winckel into accord. They each recognize only three classes: 1, a maternal presentation; 2, a fetal, and 3, an edge presentation; and the difference between them exists in the fact that Winckel places all presentations midway between a fetal surface and the edge as a fetal presentation, and all between a maternal surface and the edge as a maternal presentation—while Duncan considers both of these as edge presentations. Thus, if we add our percentages of fetal surface first and out and edge first fetal surface out, we will obtain figures similar to Winckel's. And then if we take all the presentations in which the edge participates, we will approximate the statistics of Duncan.

In regard to the relative frequency and quantity of hemorrhage after the various methods, he proves:

1. The average "natural blood loss" for the different methods of placental birth, when the Credé method of expression is used, is as follows:

Average for plac. born edge first, maternal surface out,	7.9 oz., most.
Average for plac. born maternal surface first and out,	7.5 oz.
Average for plac. born edge first, fetal surface out,	7.4 oz.
Average for plac. born fetal surface first and out,	7.1 oz., least.
Average for plac. born edge first,	7.1 oz., least.

2. The average "natural blood loss" is 7.4 oz. when the placenta is expressed by the Credé method within twenty minutes after the child's birth.

3. The average "natural blood loss" for the different methods of placental birth, when the placenta are expressed spontaneously, is as follows:

Average for plac. born edge first, maternal surface out,	5.9 oz., most.
Average for plac. born edge first,	5.8 oz.
Average for plac. born maternal surface first and out,	5.7 oz.
Average for plac. born edge first, fetal surface out,	5.5 oz.
Average for plac. born fetal surface first and out,	5.4 oz., least.

4. The average "natural blood loss" is 5.7 oz. when the placenta is expressed spontaneously within twenty minutes after birth of the child.

5. The average "natural blood loss" for the different methods of placental birth, as observed clinically, is as follows:

Average for plac. born edge first, maternal surface out, 7.7 oz., most.
Average for plac. born maternal surface first and out, 7.4 oz.
Average for plac. born edge first, fetal surface out, 7.3 oz.
Average for plac. born fetal surface first and out, 7.1 oz.
Average for plac. born edge first, 7.0 oz., least.

6th. The average "natural blood loss" is 7.3 oz., as observed clinically.

7. "Natural blood losses" occur relatively more frequently when the placentæ are born fetal surface out, than when they are born maternal surface out, but the quantity of blood lost is greater when the maternal surface is born out than when the fetal surface is born out.

8. "Natural blood losses" occur more frequently and are larger when the Credé method of expression is used than when the placentæ are born spontaneously.

9. "Natural blood losses" are larger in full term labors than in premature, with all methods of placental birth.

10. The average "natural blood loss" is greater for primiparæ than for multiparæ.

11. Excessive blood loss in the third stage is more apt to occur in spontaneous than in Credé cases, but the quantity of hemorrhage is the same for both.

12. Birth of the placenta maternal surface out increases the frequency and quantity of excessive blood loss in the third stage.

13. Large blood losses occurring with the birth of the secundines are more frequent in spontaneous than in Credé cases, but the quantity of blood lost in Credé cases is greater than in spontaneous cases.

14. Birth of the placenta maternal surface out increases the quantity of blood born with the secundines, but the frequency of this kind of hemorrhage is increased by the birth of the fetal surface out.

15. Birth of the fetal surface out increases the quantity of blood lost in third stage "hemorrhages" requiring early expression of placenta, but that this kind of "hemorrhage" is much more frequent when the maternal surface is born out.

16. The relative frequency of "hemorrhages," beginning in the third stage and continuing post-partum, as well as the average quantity of blood lost, is greater in spontaneous than in Credé cases.

17. Birth of the maternal surface out increases greatly the frequency and quantity of "hemorrhages," which begin in the third stage and continue post-partum.

18. Post-partum "hemorrhages" are more frequent in spontaneous than in Credé cases.

19. More blood is lost in post-partum "hemorrhages" when the fetal surface is born out, but such "hemorrhages" are much more apt to occur when the maternal surface is born out.

20. The frequency of all the "hemorrhages" in general, which may occur in the third stage and immediately post-partum, is increased by the maternal surface being born out, but the quantity of blood lost is slightly greater when the fetal surface is born out, and is greatest when the edge is born first.

21. "Hemorrhages" in general occur more frequently and the average blood loss is greater in spontaneous than in Credé cases.

22. "Hemorrhages" are more frequent and larger in full term cases than in premature.

23. "Hemorrhages" are a little more frequent in primiparæ, but multiparæ lose a little more blood.

24. The order of placental births in reference to loss of blood, when all classes of cases are considered, is as follows :

1. Edge first, maternal surface out—average loss, 10.8 oz., most.
2. Maternal surface first and out— average loss, 10.4 oz.
3. Edge first, fetal surface out— average loss, 10.0 oz.
4. Edge first— average loss, 9.2 oz.
5. Fetal surface first and out— average loss, 8.8 oz., least.

THE GERM OF SYPHILIS.—V. Niesen, of Weisbaden (*The Clinical Journal*, Feb. 8, 1899), has demonstrated the germ of syphilis discovered by him. He was dealing with cocci, which, in the preparations shown, were ranged in the form of chain links, and were very prettily stained with carbol-fuchsin according to Gram. It may be mentioned that V. Niesen discovered this syphilococcus in pure cultures in the bone marrow of children suffering with hereditary syphilis. Pure cultures of his cocci were injected into pigs and rabbits, and indurated plaques were formed at the point of injection. He then allowed these rabbits to pair, and out of ten young ones which resulted three were altogether rotten and showed all the symptoms of hereditary syphilis.—*Medical Record*.

THE PATHOLOGY OF ENDOMETRITIS.—Joseph McFarland (*Amer. Gyne. & Obstet. Jour.*, Jan., 1899) finds existing clinical classifications without sufficient scientific basis. A description of the endometrium is given, showing the peculiar relationship between the glandules and the subjacent structures, which is “almost like that of the endocardium to the heart.” The great difference between the endometrium in the body from that of the cervix, the great developmental changes to which the organ is subject, makes it difficult to establish a “normal.”

Much of our knowledge of the endometrium is made up from the study of uterine curettings, and little satisfaction is gained from their examination. In cases of neoplasms the curettings are superficial, while the growth may be deep; the removed portion cannot be regarded typic of what remains behind. A negative finding is of no value, but a positive one is of course satisfactory evidence of malignancy. The classification suggested by the author is as follows:

1. Hyperemia or congestion of the endometrium, clinically recognized by a thin serous, sero-mucous and sanguinolent discharge. When this becomes chronic with hypertrophy of the glands there may be typic leukorrhea. The causes are numerous, and may be direct or reflex.

2. Inflammation of the endometrium; (a) acute endometritis, which is rare and due to bacterial invasion of the uterine cavity, notably by the gonococcus and streptococcus pyogenes. This always results in a purulent discharge. Acute endometritis may also occur in the course of infectious diseases, like typhoid, cholera, scarlatina, diphtheria. The morbid anatomy is simple. The membrane is swollen, hyperemic and ragged from desquamation. The surface is bathed in a thick, purulent or muco-purulent secretion. There is round-cell infiltration of the stroma, and the bacteria causing the trouble are only found in the beginning of the process. (b) Chronic endometritis may follow the acute when the cause persists. It is occasioned by foreign and retained bodies in the uterus. There is nothing distinctive about it, and its lesions are irregular; an atrophic condition may result.

3. Specific inflammations, such as tuberculosis, syphilis, etc., form a class beyond the scope of the paper.

4. Atrophy of the endometrium. This is a normal process

and has nothing to do with endometritis, but congestions and infections may vary the process.

5. Neoplasms of the endometrium. The most frequent of these are the adenoma and adeno-carcinoma. Not all cases are accompanied by much congestion, and not all degenerate. The author thinks the endometritis chronica malignans of Van Cott is a benign hyperplasia.

ERUPTIONS ON THE FACE DUE TO NASAL PRESSURE.—G. D. Murray (*Medical Record*, March 25, 1899) reports eleven cases of eruption on the face relieved by the correction of nasal stenosis. The eruptions were mostly erythematous or acnelike. He brings out the following points :

“1. That the eruption may be caused by pressure from soft or hard parts.

2. That in the cases in which there were spurs the eruptions did not appear before puberty, probably for the reason that spurs do not occur before that time.

3. That the muddy complexion and friable skin noted in some of the cases I have observed to be a peculiar characteristic of nasal obstruction.

4. The promptness with which these eruptions disappeared after operation.

5. That the eruptions appeared first and were always worse on the side corresponding to the pressure. The probable explanation of this is that the part of the nose upon which the deformity pressed was the first to suffer from irritation, and because of its soft, yielding nature and abundant supply of nerves and blood vessels was the side most affected.

6. That the eruption cleared first on the side opposite the pressure. My explanation of this is, that not until the apex of the spur pressed against the bone of the part pressed was the septal side affected, and when the spur was removed there was no origin of irritation.

7. That the variety of pressure points noted in these cases would seem to substantiate Lennox Browne's theory as to sensitive areas in the nose.

In conclusion I wish to make a plea for the careful search for some irritation in the nose in the treatment of all skin diseases of the face when the origin is uncertain.”

ERRORS MADE IN 228 CONSECUTIVE CASES DIAGNOSTICATED AS APPENDICITIS.—Robert T. Morris (*N. Y. Med. Journal*, April 8, '99), cites seven clear errors in diagnosis:

Case 1. Confined to bed several weeks with an attack diagnosed as typhoid fever, one year before operation. Owing to repeated attacks of tenderness and pain in appendix region, case diagnosed as recurrent appendicitis. On operation appendix found normal, and adhesions around cecum probably due to localized peritonitis over site of typhoid ulcer.

Case 2. Young woman 25 years old, repeated attacks of presumed appendicitis. Operation found general peritoneal tuberculosis.

Case 3. Man, 36, constant pain and tenderness right iliac region with acute exacerbations. Palpation revealed a round, hard mass in appendix region. Operation found carcinoma of appendix and cecum.

Case 4. Woman, 34, occasional attack of appendicular colic. Operation showed appendix normal but adherent to right Fallopian tube due to local peritonitis around the tube.

Case 5. Woman, 17, history of repeated attacks of appendicitis. Examination, abdomen tense, simulating general peritonitis. Operation showed appendix and peritoneum normal, and subsequent hysterical manifestations proved that she was suffering from hysteria.

Case 6. Woman, 45, attacked with symptoms of acute peritonitis. Temperature 105, rigid abdominal muscles, pain and tenderness in right iliac region. History of previous pain in this region. Operation. Appendix normal, adherent to right oviduct. Next day patient was found to have a typical lobar pneumonia.

A few days later saw a precisely similar case of lobar pneumonia with abdominal manifestations in which a correct diagnosis was made.

Case 7. Youth, 10, convalescent from measles, suddenly developed symptoms of acute peritonitis. Evidence in favor of appendicitis. Operation. Appendix normal; peritoneal cavity filled with viscid lymph. Patient recovered from peritoneal symptoms and later suffered in turn from pericardial, pleural and meningeal exudations.

BOOK REVIEWS.

Any medical book can be obtained through the **Lancet** at publisher's prices, postage free. Terms cash. The usual discounts are allowed.

An Essay on the Nature and Consequences of Anomalies of Refraction.

By F. C. Donders, M.D., late Professor of Physiology and Ophthalmology in the University of Utrecht. Revised and edited by Charles A. Oliver, A.M., M.D., one of the Attending Surgeons to the Wills Eye Hospital; one of the Ophthalmic Surgeons to the Philadelphia Hospital; etc. With portrait and other illustrations. Philadelphia: P. Blakiston's Son & Co., 1899. Price, \$1.25

Of this tasteful little volume we can only join in the chorus of praise which its appearance has elicited. Facts in optics which are commonplace today are set forth in this essay as the result of painstaking observation in then untrodden paths. The fact that most of Donders' conclusions remain accepted is an evidence of the thoroughness of his work and the accuracy of his deductions. Dr. Oliver has hardly attempted to edit the essay, but rather to faithfully reproduce the original. The translation, we understand, was made by Dr. David Reisman, though no mention of this is made in the book. An excellent portrait of Prof. Donders appears as a frontispiece, and the type and paper are unusually perfect. The book is tastefully bound in half morocco, and the dress throughout is worthy of the work of the distinguished author.

Progressive Medicine. A Quarterly Digest of the Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Cloth, 490 pages, 28 illustrations, and 3 colored plates. Philadelphia and New York: Lea Bros. & Co., 1899. Price, \$4.

Much has been expected of this new venture, and since its appearance the comments of the medical press indicate that it has fulfilled all it promised. Under the editorship of such a judicious mind as that of Dr. Hare, seconded by a no less able corps of assistants, it gives us just what the preface announces—that is, a careful review of the progress of medicine in every department. It is not an abstract of all that appears on the particular subject, but an account, connectedly written by the compiler, of progress. Bibliographical references are given, and the matter not let pass with a bald statement, but commented on and assigned its place in relation to other studies on the same line. In each instance the work of the department is done by one thoroughly qualified to speak *ex cathedra*. We are fortunate now in having our culling done for us. The various yearbooks go quite fully into all that is written on each subject, and with the addition of this work, which is peculiar in its scope, a satisfactory library, covering what is worth preserving of a year's work, can be had in a few volumes. In this book we are sorry to note that American writers have not contributed their share to what competent American judges hold to represent progressive medicine. The mechanical work of the book is very well done. Personally, we think more illustrations would increase its

value, though their advisability in a book of this character might well be questioned. *Progressive Medicine* will appear quarterly. The subscription price is \$10 a year, and a better investment of the money could not well be made.

The Pathology and Treatment of Sexual Impotence. By Victor V. Vecki, M.D. From the author's second German edition, revised and rewritten. Philadelphia: W. B. Saunders, 925 Walnut street, 1899. Price, \$2.

This work treats in a very original way and with great positiveness of a class of disorders very little understood by the average practitioner. The book is in ten chapters, including Anatomy, Physiology, Etiology, Forms of Impotence, Diagnosis, Prophylaxis, and Treatment. Illustrative cases are given, and great stress is laid by the author upon his difference of opinion from other writers. The work shows considerable original research, and the bibliographic references are quite extensive. The chapters on treatment are very conservative. The translation, though good, is not wholly satisfactory. We believe this little volume will be well received, and although one may differ with the author in much, one cannot fail to be instructed.

Practical Materia Medica. For Nurses, with an Appendix Containing Poisons and Their Antidotes, etc. By Emily A. M. Stoney, late Superintendent of Training School for Nurses, Carney Hospital, South Boston, Mass., etc. Philadelphia: W. B. Saunders, 1899. Price, \$1.50

Part I contains 35 pages, and is given to methods of administration and classification of drugs, comprising many practical points. Part II, 190 pages on *Materia Medica*; is brief but practical, complete and up-to-date. Part III, 52 pages on Poison Emergencies, Mineral Waters, Weights and Measures, Dose List, Glossary, etc.; covers these subjects in a concise way, and gives all that is necessary for nurses to know on these subjects. We commend the book for the matter it contains and its cheapness, but think it lacks durability, owing to poor paper and binding.

The International Medical Annual and Practitioners' Index. A Work of Reference for Medical Practitioners. 1899, seventh year. E. B. Treat & Co., New York and Chicago. Price, \$3.

In this volume the essential advancement of all branches of medicine and surgery for the year of 1898 are preserved. It is a splendid epitome of the history of medicine during that time, and is invaluable as a work of reference to the essayist and clinician alike. In addition to a clear and comprehensive review of new drugs, instrument methods and theories, the editors have included a number of original articles on some of the most important additions to our science, handling the subjects sufficiently freely to demonstrate their present status, yet disposing with much of the circumlocution so often attached to new things. It is this very conciseness that makes the book so useful.

BOOKS AND PAMPHLETS RECEIVED.

Atlas of the External Diseases of the Eye, Including a Brief Treatise on the Pathology and Treatment. By Prof. Dr. O. Haab, of Zurich. 76 colored plates and engravings. W. B. Saunders, Philadelphia.

The Anatomy of the Central Nervous System of Man and of Vertebrates in General. By Prof. Ludwig Edinger, M.D., Frankfort-on-the-Main. Translated from the Fifth German Edition by Winfield S. Hall, PH.D., M.D., Professor of Physiology in the Northwestern Medical School, Chicago. Assisted by Philo Leon Holland, M.D., Instructor in Clinical Neurology in the Northwestern University Medical School, Chicago, Ill.; and Edward P. Carleton, B.S., Demonstrator of Histologic Neurology in the Northwestern University Medical School, Chicago. Illustrated with 258 engravings, $6\frac{1}{2} \times 9\frac{1}{2}$ inches. Pages xi-446. Extra cloth, \$3. The F. A. Davis Co., Publishers, 1914-16 Cherry street, Philadelphia.

Progressive Medicine—A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. By H. A. Hare, M.D. Lea Brothers & Co., Philadelphia, 1899.

An Essay on the Nature and Consequences of Refraction. By F. C. Donders, M.D., Late Professor of Physiology and Ophthalmology in the University of Utrecht. Revised and edited by Charles A. Oliver, A.M., M.D., Philadelphia. P. Blakiston's Son & Co., 1899.

The Pathology and Treatment of Sexual Impotence. By Victor G. Vecki, M.D. W. B. Saunders, Philadelphia.

Practical Materia Medica for Nurses. By Emily A. M. Stoney. W. B. Saunders, Philadelphia, 1899.

Annual and Analytical Cyclopedia of Practical Medicine. By Chas. E. de M. Sajous, M.D., and One Hundred Associate Editors. Illustrated with chromo-lithographs, engravings and maps. New York: F. A. Davis Co., 1899.

The International Medical Annual and Practitioners' Index—A Work of Reference for Medical Practitioners. 1899, seventeenth year. New York and Chicago: E. B. Treat & Co.

Uric Acid — A Factor in the Causation of Choroiditis. By Randolph Brunson, M.D., of Hot Springs, Ark. (Reprinted from the *Journal of the American Medical Association*, press 1899.)

Recent Experience with Advancement of the Recti Muscles. By C. H. Beard, M.D., of Chicago, Ill. (Reprinted from the *Journal of the American Medical Association*, October 8, 1898.)

Squint — With Special Reference to Its Surgery. By Charles H. Beard, M.D., of Chicago.

Headaches — Causes and Treatment — With Especial Reference to Nasal and Ocular Headaches. By A. D. McConachie, M.D., of Baltimore, Md. (Reprinted from *Maryland Med. Jour.*, March 4, 1899.)

A Running Account of My First Three Years of Surgical Work. By H. A. Royster, A.B., M.D., of Raleigh, N. C.

Appendicitis. By H. O. Walker, M.D., of Detroit, Mich. (Read before the Kalamazoo Academy of Medicine, January 17, 1899.)

The Progress of Rhino-Laryngology. By William Scheppegeggell, A.M., M.D., of New Orleans, La. (Reprinted from the *Laryngoscope*, January, 1899.)

Anthropological Investigations on One Thousand White and Colored Children of Both Sexes. By Dr. Ales Hrdlicka. (Wynkoop Hallenbeck Crawford Co., printers, New York and Albany.)

The Absolute and Permanent Cure of Tonsillitis. By Edwin Pynchon, M.D., of Chicago. (Reprinted from the *Alkaloidal Clinic* of October, 1897.)

The Bete Noir of the Vocalist. By Edwin Pynchon, M.D., of Chicago. (Reprinted from the *Alkaloidal Clinic*, April and May, 1899.)

Pityriasis Rubra Pilaris. By A. Ravogli, M.D., Cincinnati, Ohio. (Reprinted from the *Cincinnati Lancet-Clinic*, April 8, 1899.)

THERAPEUTIC NOTES.

CATARRH, NASAL AND FAUCIAL:

- R Menthol, \mathfrak{z} ss
 Chloroform, $\mathfrak{f} \mathfrak{z}$ v
- M. Sig.: Inhale four or five drops,
 rubbed on palms of hands, sev-
 eral times a day.
- R Tr. aconiti rad., $\mathfrak{f} \mathfrak{z}$ j
 Tr. belladonnæ, $\mathfrak{f} \mathfrak{z}$ ij
- M. Sig.: Three drops every hour.
 (Pharyngitis and acute tonsillitis.)
Ringer.

FEVER MIXTURE:

- R Potass. bromid., \mathfrak{z} iv
 Tr. belladonnæ, m xxxij
 Tr. aconit. rad., gtt. viij
 Spt. ætheris nit., $\mathfrak{f} \mathfrak{z}$ iij
 Mist. potass. cit., q.s. ad., $\mathfrak{f} \mathfrak{z}$ viij
- M. Sig.: One tablespoonful every two
 or three hours. Keep in a cool
 place. *White.*
- R Morph. acetat., gr. j
 Sacchar. alb., \mathfrak{z} ij
 Spt. ætheris nit., $\mathfrak{f} \mathfrak{z}$ ij
 Liq. ammonii acet., $\mathfrak{f} \mathfrak{z}$ iv
 Aq. camphoræ, q.s. ad., $\mathfrak{f} \mathfrak{z}$ viij
- M. Sig.: One tablespoonful every two
 or three hours. *Ashhurst.*

ACNE ROSACEA:

- R Sulphuris præcip., \mathfrak{z} iv
 Pulv. camphoræ, gr. x
 Pulv. tragacanthæ, \mathfrak{z} j
 Aq. calcis, $\mathfrak{f} \mathfrak{z}$ ij
 Aq. rosæ, $\mathfrak{f} \mathfrak{z}$ ij
- M. Sig.: Shake the bottle before us-
 ing, and apply every few hours.
"Kummerfeld's Lotion."

FRECKLES:

- R Hydrarg. chlor. cor., gr. viiss
 Zinci sulph.,
 Plumbi acet., $\mathfrak{a}\mathfrak{a}$ \mathfrak{z} ss
 Aquæ, $\mathfrak{f} \mathfrak{z}$ iv
- M. Sig.: Use as a lotion.

ACNE OF THE FACE:

- R Sulphur. præcip.,
 Cretæ præcip.,
 Aq. laurocerasi,
 Spt. vini rect., $\mathfrak{a}\mathfrak{a}$ \mathfrak{z} ij
- M. Sig.: Bathe the face with hot
 water, and dry it with friction;
 then apply the lotion. *Leroy.*

ECZEMA SQUAMOSUM:

- R Picis liquidæ, $\mathfrak{f} \mathfrak{z}$ j
 Sulphur, \mathfrak{z} j
 Ungt. simplicis, $\mathfrak{f} \mathfrak{z}$ j
- M. Sig.: To be rubbed in, morning
 and evening. *Stelwagon.*

NEURALGIA:

- R Ichthyol, gr. xv
 Mercurial ointment, gr. xv
 Chloroform,
 Spirit of camphor, $\mathfrak{a}\mathfrak{a}$ $\mathfrak{f} \mathfrak{z}$ iss
- M. Sig.: Shake well before using,
 and rub over the affected part.
Eulenburg.

ACUTE LARYNGEAL CATARRH AND IN PSEUDO-CROUP:

- R Ichthyol, 2
 Cold water, 100
- M. Sig.: Use as a spray by means of
 a Richardson atomizer from three
 to five minutes once or twice daily.
Cieglewicz (Praeglad Lekarski).

ACUTE TONSILLITIS IN CHILDREN:

- R Tinct. aconiti, m viij
 Liq. ammonii citratis, $\mathfrak{f} \mathfrak{z}$ ij
 Syr. aurantii, q.s. ad., $\mathfrak{f} \mathfrak{z}$ ij
- M. Sig.: A teaspoonful every three
 hours for a child of five years.
Ashby (Medical Record).

NEWS AND NOTES.

DR. E. T. JOHNSON, of Eden, Miss., was in Memphis early in April.

DR. J. C. WALKER, a colored practitioner of this city, died on April 12th.

DR. WM. KRAUSS, of the LANCET, has been elected Visiting Physician to St. Joseph's Hospital.

THE smallpox quarantine at the City Hospital was raised, and patients again admitted on April 3d.

DR. J. H. MAHAN, who was for many years connected with the City Hospital as steward and apothecary, has moved to Chattanooga.

DR. F. D. SMYTHE has been elected Gynecologist to St. Joseph's Hospital to fill the vacancy which has existed since Dr. E. Miles Willett removed from the city.

DR. CAMERON PIGGOTT, Professor of Chemistry in the University of the South (Sewanee), was severely injured by a fall from Clara's Point, near Sewanee, on April 2nd.

DR. CHARLES MORROW, of Memphis, was the successful candidate in the examination for the position of interne at St. Joseph's Hospital for the year commencing May 1st.

THE Mississippi State Board of Health, elected by the Mississippi State Medical Society at its annual meeting in April, is as follows: H. A. Gant, J. F. Hunter, H. H. Haralson, W. M. Paine, S. R. Dunn.

DR. E. E. ELLIS has removed from Dyersburg, Tenn., to Hot Springs, Ark. Dr. Ellis is a member of the Tri-State Medical Association and a frequent visitor to Memphis. His removal is on account of his health.

DR. P. M. FARRINGTON, formerly surgeon-in-charge of the City Hospital, has gone East, where he will spend about a year studying diseases of the eye, ear, nose and throat, to which he will limit his practice on his return.

DR. L. C. FEEMSTER, who was house surgeon at St. Joseph's Hospital in '97 and '98, was in the city during April. He is located at Nettleton, Miss., and associated with his father in the practice of medicine. He is doing well.

THE examination for internes at the City Hospital resulted as follows: Drs. Morrow, Boyd, Wolff, Watson, Ball and Fountain. Dr. Morrow, having accepted the appointment to St. Joseph's Hospital, will not take a position at the City.

DR. MARY O'DRISCOLL, a former Memphian, died in St. Louis on April 8th. She was associated with Drs. Drouillard and Gowling up to a year ago, since which time she has been resident physician of the Martha Parson Hospital of St. Louis.

DR. ALFRED MOORE, Quiz Master on Obstetrics and Gynecology at the Memphis Hospital Medical College, was presented with a gold-headed cane by the members of the graduating class, as a token of their appreciation of his work with them.

THE *Revue Internat. de Rhin., Otol. & Laryng.* has added a department of experimental phonetics. The new department will be well provided for, judging from the prospectus, and this rather undeveloped field will be well worked. The *Revue* is published at 23-25 Rue de l'École-de-Médecine, Paris. The subscription is 16 fr. a year. Single numbers, 2 fr.

THE following officers have been elected by the Mississippi State Medical Society for the ensuing year:

R. E. Jones, Crystal Springs, President.

J. L. McLean, Winona, First Vice-President.

C. B. Mitchell, Pontotoc, Second Vice-President.

J. F. Tackett, Biloxi, Secretary.

WE learn from an exchange that the widow of Sir Morrell Mackenzie, the most celebrated laryngologist of this century, is earning her living as a modiste in London, and contemplates selling her husband's library for financial reasons. It is a rather curious fact that so many medical men who enjoy the most lucrative practices, leave their families in straitened circumstances. It will be remembered that Queen Victoria sent Sir Morrell Mackenzie to Germany to attend her son-in-law, the late "Crown Prince."

THE following officers were elected by the Tennessee State Medical Society for the ensuing year: Dr. D. E. Nelson, of Chattanooga, President; Drs. G. M. Bagemore, of Cleveland, G. W. Moody, of Shelbyville, and M. M. Smith, of Cedar Chapel, Vice-Presidents; Dr. W. D. Haggard, of Nashville, Secretary; Dr. W. C. Bilbro, of Murfreesboro, Treasurer. Knoxville was selected as the next place of meeting.

THE following gentlemen have been appointed as a medical staff to the Leath Orphan Asylum:

Physicians—Dr. S. E. Rice.

Dr. L. L. Meyer.

Dr. S. C. Sims.

Surgeons — Dr. John M. Maury.

Dr. M. Goltman.

Dr. M. B. Herman.

Ophthalmic and Aural Surgeon—Dr. E. C. Ellett.

THE Nineteenth Annual Commencement of the Memphis Hospital Medical College was held on April 27th, at 2 o'clock. One hundred and twelve graduates received diplomas. The charge to the graduates was delivered by Mr. G. T. Fitzhugh, of the Memphis bar. The following were awarded prizes:

Best examination in Obstetrics and Gynecology—Dr. Hugh Boyd.

Best examination in Surgery—Drs. W. B. Malone and J. W. Beall.

Best report of Eye and Ear Clinic—Dr. Charles Morrow.

Best report of Surgical Clinic—Dr. W. P. Ball.

A CONSTRUCTION has been put on our comments on affairs at the City Hospital in the April issue, which is incorrect. In stating that the outbreak of smallpox was made possible by the then method of conducting the hospital, it was meant that in the absence of the physician-in-charge for any reason, no one but the interne was there to take his place. The writer of this saw Dr. Farrington, the physician-in-charge at that time, professionally on the 19th and 20th of February, when he was confined to his bed. It was during this time that the case referred to developed, and was not recognized till he resumed his duties on the 21st. The rest of our comments were plain statements of facts.

THE Third International Congress for Gynecology and Obstetrics will be held at Amsterdam August 8-12. The leading questions for discussion will be the following:

1. The Surgical Treatment of Fibro-Myoma.
2. The Relative Value of Antisepsis and Improved Technic for the Actual Results in Gynecological Surgery.
3. The Influence of Posture on the Form and Dimensions of the Pelvis.
4. The Indication for Cæsarian Section Compared to that for Symphysiotomy, Craniotomy and Premature Induction of Labor.

M. M. Doyen, Howard Kelly and Schauta will treat the first question; M. M. Bumm, Richelot and Lawson Tait the second; M. M. Bonnaire, Pinzani and Walcher the third, and M. M. Leopold, Pinard, Pestalozza and Fancourt Barnes the fourth.

PARIS will soon again be the attraction of the world. Parties are already being made up to visit the Exposition which is to be held there next year, and it will interest not a few of our readers to know that an American boarding house, or as the French call it, a "pension," is to be started for the special benefit of those who prefer staying where straight American is spoken, and where, moreover, they will have opportunities of meeting other folks from their own country. It will be conducted by Professor Wisner and his wife, who, although natives of France, have resided for a considerable time in New York City, and are well acquainted with American ways and customs. They have taken a mansion in the neighborhood of the Bois de Boulogne, and they intend fitting it up in such a manner as to ensure that their guests will have a comfortable home during their residence in the gay capital. The Professor and his wife are well known in medical circles in New York, and having arranged to accommodate a number of prominent doctors and their families, they hope to make their house the American headquarters for the profession. Before leaving for Paris, as he intends doing shortly, Professor Wisner would be pleased to hear from other prospective guests. For the present he may be addressed at No. 605 Madison Ave., New York City.

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CLINICAL NOTES.

THE TREATMENT OF OBESITY.—To illustrate the rapid reduction of flesh produced by thyroid treatment, the following case, taken from an article by Dr. M. Weiss, of Vienna, published in the *Weiner Medicinische Wochenschrift*, no. 41, 1898, will prove of interest: "A hotelkeeper, 45 years old, a gourmand and heavy drinker, presented the typical picture of the plethoric form of obesity; symptoms of stagnation in the abdominal organs; bronchial catarrh; weight, 103 kilos. During thirty-six days he received ninety-eight tablets of Iodothylin. In order, however, that in this case of obesity from over-feeding the action of Iodothyline should not be neutralized by immoderate eating and drinking, it was considered wise to supplement the medicinal treatment with an appropriate regimen. The times of meals were therefore regulated, fatty and sweet foods were permitted only in small quantities, and the supply of alcoholics was reduced to one-half, or one litre of beer and one-fourth litre of wine per diem. All severe muscular exertion was avoided at the beginning of the treatment. The results of this treatment were excellent. The reduction of the bodily weight after the first week amounted to 5 kilos, after the second to $8\frac{1}{2}$, after the third to $10\frac{1}{2}$, and after the fourth to 12 kilos. The symptoms of stasis had in great part disappeared, the condition of bodily strength was satisfactory, and the patient was able to take walks of several hours duration, and to make a tour through the mountains."

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THE
MEMPHIS LANCET.

VOLUME II.

JUNE, 1899.

No. 6

ORIGINAL ARTICLES.

NINTH ANNUAL REPORT
TO THE
STATE BOARD OF MEDICAL EXAMINERS.

BY T. J. HAPPEL, M.D., SECRETARY,
TRENTON, TENN.

The detailed account presented in the minutes of the last annual meeting precludes the necessity of a lengthy review of some of the matters found in previous reports.

A sufficient length of time has not yet elapsed to permit a fair estimate to be made of the effect of the amendments to our medical laws adopted in 1897.

Predictions made in my eighth annual report in regard to efforts to be made to repeal or modify our medical law have proven too true. Within ten days after the organization of the present Legislature, five bills relating to medical legislation had been introduced. One of them, perhaps, proposed the repeal of the entire law, and the others an emasculation of it by requiring an acceptance of diplomas as evidence of fitness to practice medicine in this State. Only one bill was introduced to rectify some few irregularities in the existing law. That bill has been tabled in the House.

Back of all these efforts can be traced the Italian hand of interested parties, who care more for self than for the protection of the people from quacks and vampires. Any return to the old order of things will make the State of Tennessee the dumping-ground for all of our neighbors. All of them are fully protected by rigid laws, and this State will have to receive what they have rejected.

Evidently the impression has gone abroad that diplomas are to be received as sufficient evidence of fitness to practice in this State, as many letters have come to me already inquiring about the standing of various colleges. Tennessee has generally been in the van in educational matters, but should such changes be made in our medical laws as are referred to above, she will drop to the rear. Only a few days ago I received a diploma from the Dutton Medical College of Chicago, which college claimed to have been chartered in 1896. The diploma was signed by a president and secretary. It was promptly returned to the female applicant with a notice to appear before the Board for examination. The college appears to be one of the newer frauds, assuming a name closely resembling that of a college in the same city in good standing.

One of the good results of the last amendments has been to decrease largely the number of applications for temporary license, as an examination and fee are required for a temporary license, which license, under the ruling of our Attorney-General for the State, expires immediately upon the assembling of the Board in session. The opinion was furnished your Secretary upon an agreed state of facts in the case of Dr. C. F. Andrews. It is as follows:

OFFICE OF G. W. PICKLE,

Attorney-General of Tennessee.

JACKSON, TENN., May 31, 1898.

T. J. HAPPEL, M.D., Trenton, Tenn.

DEAR SIR: Replying to yours of the 30th inst., enclosing agreed statement between the State Board of Medical Examiners and Dr. C. F. Andrews. . . . I am of the opinion that the temporary license had no other effect than to tide over Dr. Andrews until the next meeting of your Board. The statute, as well as the form of certificate used upon granting the temporary license, limit the effect of such license to the next regular meeting of the Board. I do not think the examination at the time of granting the license binding upon the Board in such a manner as to entitle Dr. Andrews to permanent license, without another examination. The statute seems to contemplate the payment of fees for each examination, though it seems in this particular instance it operates as a hardship upon Dr. Andrews. . . .

Yours very truly,

G. W. PICKLE,
Attorney-General.

The usual number of questions have been raised in regard to the effect of the change of the law upon the status of those who had entered upon the study of medicine prior to that time, or who had received temporary licenses before the passage of the amendments. In all cases where the Board had decided similar questions your Secretary answered the parties fully, but herewith presents those unanswered to you for final determination.

The report of your Secretary and Treasurer was printed shortly after the adjournment of the Board, and copies of it, the Eighth Annual Report, were sent to the various State Boards and to many parties in this State. Some few Boards in other States sent reports in exchange. For the purpose of caring for these reports your Secretary needs a book-case, devoted to the uses of the Board's affairs alone. Such a purchase should be ordered, conditioned upon no changes being made in the present law whereby its revenues are decreased. If changes are made resulting in a decrease in the income of the Board, then this purchase should not be made.

One fact, in connection with the action of the law as it now stands with its present fees, should be impressed upon our law-makers, namely, that there can be paid over to the State annually from \$400 to \$500 of revenue, arising from fees paid in by applicants, which amount will be the surplus remaining after all expenses have been paid. No department of the State's affairs has been run at so small a cost. No office rent has ever been charged to the Board's account, and no waste of stationery has been allowed.

The year has been prolific in correspondence. The county court clerks are required to report semi-annually the registrations, deaths and removals of the physicians of the different counties of the State. Not more than six of them had reported up to last July, when I decided to mail to each one a circular letter calling his attention to the law and enclosing a blank for a report, together with a stamped and addressed return envelope for a reply. As a result of this procedure I have received reports from about 75 counties in the State. From these reports many corrections have been made, and the lists are now in a much more perfect condition. The law provides that there shall be paid to the clerks ten cents for each name reported. In satisfaction of these claims I have paid out, as shown by vouchers, the sum of \$52.30. I append the circular sent to the clerks and the blank form of report requested of each, and make

each a part of this report. They are marked respectively Exhibit B and Exhibit C. In a few cases, even though printed postal card receipts were mailed with the remittances, a small number of the clerks failed to sign and return them. The receipt for postage with which these remittances were made covers these different amounts.

At the annual meeting of the Board, April 5th, 1898, there appeared for examination by the Board, 97 applicants. The particulars of the examination are fully set forth in the minutes, to which reference for further information is made. From 96 of these applicants a fee of \$15 each was collected to cover examination and certificate fees. One paid his examination fee alone; hence the total collected at that time was \$1450. Of these 97 applicants, 81 successfully passed the required grade, and 16 were rejected; but of the 16 rejected the grade of 7 was sufficiently high to justify the Board in authorizing the Secretary, after a proper lapse of time, to issue temporary licenses to those who proposed to attend lectures the ensuing term. To these 7 parties there was refunded their certificate fee of \$5, and there was collected from them a fee of \$1 for temporary license. To those to whom no temporary license was granted \$10 was refunded in each case, this being the amount paid by each for their certificates and one-half of their examination fee as provided by law. All of these matters are fully shown in the cash book. The certificates were sent out as rapidly as the averaging could be completed and all facts collected in regard to the applicants.

The subjoined table gives the schools attended by the applicants, the number from each school, the number passed and the number rejected belonging to each school, together with the lowest and highest grades attained by students from each school; and also the number of non-graduates applying, with the same facts as in the case of the graduates:

COLLEGES	No. Examined	No Passed	No. Rejected	Highest Per Cent.	Lowest Per Cent.
Vanderbilt University.....	12	10	2	89	50
University of Nashville	21	20	1	91	65
University of Tennessee	5	4	1	95	40
Tennessee Medical College.....	5	5	...	85	75
Meharry Medical College	2	1	1	75	71
Memphis Hospital Medical College	8	7	1	88	71
Chattanooga Medical College.....	4	3	1	89	50
University of Louisville	5	5	...	85	75
Louisville Medical College.....	1	...	1	...	65
Hospital Medical College	2	1	1	80	62
Kentucky School of Medicine.....	1	1	...	75	...
Jefferson Medical College.....	1	1	...	75	...
University of Pennsylvania.. ..	3	3	...	96½	75
Bellevue Hospital Medical College	1	1	...	80	...
Baltimore College of P. and S.....	1	1	...	79	...
Baltimore Medical College	2	2	...	78	77
Southern Medical College.....	2	2	...	85	78
Tulane University	1	1	...	75	...
University of Virginia	1	1	...	90	...
University of Michigan.....	3	3	...	89	79
Missouri Medical College	1	1	...	92	...
Milwaukee Medical College	1	1	...	59	...
University of Kansas City	1	1	...	85	...
Non-graduates.....	13	6	7	88	34
Total.....	97	81	16	...	...

The several parties to whom the Secretary was directed to issue certificates and duplicates were then attended to, and then all those who held temporary licenses granted on diplomas before the law was amended were notified to send in their temporary licenses, and as fast as they were received certificates were mailed to each.

The names of all the parties to whom certificates have been issued since the meeting of the Board, appear as Exhibit A to this report. Temporary licenses were extended for a number of parties who presented tickets showing attendance upon lectures, and who for reasons satisfactory were not able to be present at the meeting of the Board.

Dr. Heber Jones, who was chosen the delegate of the Board to the National Confederation of State Examining and Licensing Boards at Denver, Col., June, 1898, was not able to attend. The Secretary of this Board was present as a member but not as the delegate. Owing to the absence of the President and Secretary and a number of delegates, no meeting was held. I would suggest

that the Board appoint in future a delegate and an alternate, so as to be sure of a representative in the meeting each year.

Dr. Hunter's term as a member of the Board having expired, he was re-appointed by Gov. Taylor for another term of six years.

Dr. Halbert's term expires June 20, 1899.

The allotment of examination subjects for April, 1899, resulted as follows: Dr. Jones, Pathology; Dr. Halbert, Materia Medica; Dr. Hunter, Chemistry and Obstetrics; Dr. Pillow, Practice; Dr. McCreary, Anatomy; Dr. Happel, Surgery and Physiology.

REPORTS OF MEMBERS.

Dr. Heber Jones, President, reports that he, in connection with Dr. Happel, has examined and granted temporary license to 7 parties, and has remitted to your Secretary and Treasurer \$7 therefrom, for which he holds his receipt.

Dr. W. H. Halbert, Vice-President, reports that he, in connection with Dr. Pillow, has examined and granted temporary license to 17 applicants, and has remitted the temporary license fee of \$1 each to your Secretary, for which he holds his receipt; total, \$17.

Dr. W. L. McCreary reports that he has examined, in connection with Dr. Hunter, 26 applicants, and has granted temporary license to 25, rejecting 1; that he has remitted, and holds your Secretary's receipt for \$26.

Dr. E. E. Hunter reports that he has examined with Dr. McCreary 6 applicants, and granted each of them temporary license, collecting a fee of \$1 from each of them, and in addition a fee of \$5 from one of them, he being entitled to a certificate; that he has turned over, and holds your Treasurer's receipt for \$11.

Dr. Robt. Pillow reports that he, with Dr. Halbert, has examined and granted temporary license to 2 parties, and that he holds your Treasurer's receipt for \$2, being the amount due for same.

Dr. T. J. Happel reports that he has, under the orders of the Board, issued temporary licenses to 7 parties, collecting from each \$1; total, \$7. That he has renewed temporary licenses for 29 applicants, collecting a fee of \$1 from each; total, \$29. That he examined one party and granted him temporary license, collecting \$1 for license fee. Aggregate, \$37. He has issued 94 certificates in lieu of temporary licenses granted on diplomas prior to passage of the amendments, collecting a fee of \$5 in each case; total, \$470. That under orders from the Board he has issued certificates to 3

non-graduates on former examinations, collecting in all \$15, and 13 duplicates where proof was made of loss, total fees, \$13. Aggregate, \$498. From the various items set forth in this report as coming into the hands of the Treasurer the debit side of his account is made up.

Your Secretary was summoned to Nashville for the purpose of having the books and papers of the Board examined by a legislative committee, of which Mr. Craig of Crockett was chairman. Mr. Craig, after an examination of less than two hours, seemed to have learned all that he needed to know of the work of the Board, a work that had required months of labor on the part of your Secretary. The expenses of the trip would be, I presume, a legitimate charge against the funds of the Board. I herewith present an account for the same.

T. J. HAPPEL, Treasurer,

In account with the State Board of Medical Examiners.

1898		Dr.	
April 4	To balance cash on hand per last report.....	\$ 750.80	
April 5	To cash received from examiners.....	1450.00	
1899			
April 1	To cash received from 94 certificates on Diplomas.....	470.00	
April 1	To cash received from 3 certificates to non-graduates.....	15.00	
April 1	To cash received from 13 certificates (duplicates).....	13.00	
April 1	To cash received from 7 temporary licenses, Heber Jones..	7.00	
April 1	To cash received from 17 temporary licenses, W.H. Halbert	17.00	
April 1	To cash received from 26 temporary licenses, W.L. McCreary	26.00	
April 1	To cash received from 6 temporary licenses, E. E. Hunter	6.00	
April 1	To cash received from 1 certificate, E. E. Hunter.....	5.00	
April 1	To cash received from 2 temporary licenses, R. Pillow.....	2.00	
April 1	To case received from 37 temporary licenses, T. J. Happel..	37.00	
	Total		\$2798.80
1898		Cr.	
April 7	By expense account Nashville meeting.....	\$ 853.85	
April 7	By expense account representative to Philadelphia.....	75.00	
April 7	By salary of Secretary.....	500.00	
April 7	By printing account, etc., W. H. Halbert, to April, 1898..	44.95	
April 7	By amount refunded Examiners.....	120.00	
1899			
April 1	By amount paid attorneys to date	100.00	
April 1	By printing and stationery account, office.....	65.35	
April 1	By amount paid county court clerks.....	53.60	
April 1	By amount refunded Campbell.....	1.00	
April 1	By amount paid express charges	1.75	
April 1	By amount paid postage for office.....	16.25	
April 1	By balance cash on hand	967.05	
	Total.....		\$2798.80

292 REPORT—STATE BOARD MEDICAL EXAMINERS.

EXHIBIT A.

NAMES OF PHYSICIANS TO WHOM CERTIFICATES HAVE BEEN ISSUED

From April 7, 1898, to April 5, 1899.

The names are arranged by counties, and where no post office is given the county seat is the location given by the physician. The numbers following each name refer to the college from which the party graduated.

Anderson County—N. J. Winter, 5, Coal Creek. C. B. Jones, 10, Scarbrough.

Bedford County—J. Isaac Campbell, 28. T. J. Cable, 1. W. M. Crockett, 3, Bellbuckle.

Blount County—Hugh M. French, 5. W. A. Greer, 1, Friendsville. W. G. Casenburgh, 5, Friendsville. J. N. McConnell, 5, Blank.

Bradley County—Thos. J. McCamey, 2. Robert Lee Taylor, 2. R. P. Sullivan, 97, Chatata. J. L. McClary, 2, Charleston.

Campbell County—J. P. Burnum, 20. Alonzo Lawson, 12, Jellico.

Carroll County—H. D. McGill, 3, Clarksburg. (Dup.)

Cannon County—W. B. McCrary, 1.

Cheatham County—W. S. Lockert, N. G., Lockertsville. J. E. Moseley, 1, Ashland City.

Claiborne County—W. E. Jarnagin, 5, Hartranft.

Coffee County—Earnest Raw, N. G., Tullahoma. Ben. E. Franklin, 130, Noah.

Davidson County—J. E. H. Atkeison, 1. C. M. Brown, 3. Max. Cohn, 3. W. R. Davis, 1. W. G. Frierson, 2. McPheeters Glasgow, 15. W. W. Graham, 2. Douglass Haggard, 3. C. B. Hanson, 3. H. M. Haynie, 1. M. R. Hopkins, 1. Albert Hudson, 2. M. S. Hughes, 2. Percy L. Jones, 3. D. T. Kimbrough, 2. P. T. Kirkpatrick, 1. T. W. Menees, 1. H. H. Murrey, 2. T. R. Newman, 3. A. S. Nichol, 2. W. W. Rucks, 2. J. L. Scales, 2. W. H. Tanksley, 1. B. G. Tucker, 1. H. S. Ward, 2. C. C. Warder, 69. Thos. Weaver, 2. J. N. West, 14. Jas. Whitworth, 2. Carrie L. Wilson, N. G. H. J. Wells, 2. Louis Leroy, 134.

DeKalb County—L. D. Allen, 2. Chas. B. White, 2. Dowelton.

Dickson County—W. W. Walker, 2, Dickson. A. Roder* (Russian Col.), Vanleer.

Dyer County—A. A. Greenlee, 6. (Dup.) G. T. Hendricks, 2, Newberne. E. T. Haskins, 1, Tatumville. B. D. Crowe, 7, Templeton. Thos. F. Taylor, 1.

Fayette County—Fleetwood Gruner, 2. W. C. Duke, 20, Macon.

Gibson County—Asa M. McRee, 1, Trenton. Geo. L. Porter, 8, Trenton.

Giles County—Geo. L. Davidson, 131, Yokeley.

Hamilton County—E. B. Anderson, 1. C. A. Cobleigh, 97. W. A. Duncan, 97. F. W. Falk, 97. J. E. Howard, 3. (Dup.) W. F. McManus, 3. J. P. Manker, 97. C. C. Pierce, 97. H. C. Smisson, 97, Alton Park. J. B. McGhee, 97, Sherman Heights. Chris. G. Cate, Rossville, Ga.

Henderson County—J. E. Adkinson, Juno.

Hickman County—Wm. J. Sugg, 2.

Humphries County—R. A. Brugger, 26. C. C. Sullivan, 2. J. W. Pruett, N. G., Vaden. E. T. Lewis, 2, Woolworth. J. B. Harrington, 2, McEwen.

Jackson County—J. F. Fox, 1, Bagdad.

Jefferson County—R. B. Layman, 8, Sandrigo. M. B. Taylor, 8, Trion. B. M. Tittsworth, 29, Shady Grove.

Johnson County—J. S. Waltz, 45, Mountain City. J. S. Donnelly, 14, Shoun's Cross Roads.

Knox County—C. T. Carroll, Jr., 5. W. R. Cochrane, 15. H. A. Ijams, 69. J. H. Kincaid, 69. M. Campbell, 2. Chas. M. Merrill, 21. W. F. Armstrong, N. G., Caswell. J. W. Christian, 5, Hardin Valley. A. B. Hansad, N. G., Twinville.

Lake County—J. A. Crafton, 2, Bessie. A. P. Smythe, 1, Ridgley. (Dup.)

Lauderdale County—J. A. Porter, 1. (Dup.)

Lawrence County—E. C. Lindsey, 1. J. H. Pickard, 1, Summertown.

Lewis County—E. M. Sidler, 132, Hohenwald.

Lincoln County—W. S. McCown, 3, Howell. J. W. Ousley, 20, Fayetteville.

Loudon County—T. J. Leeper, 8, Lenoir City.

McNairy County—R. M. Kendrick, 47, Selmer.

Macon County—R. E. Bratton, 2, LaFayette. W. S. Dotson, 3, Long Creek.

Madison County—G. H. Savage, 1. A. McCoy, 8. P. B. Lusk, 51. C. C. Drake, 2. J. L. Light, 6. L. F. Rhodes, 7, Pinson. J. H. Lanier, 2, Claybrook.

Marion County—G. L. Mitchell, 2. W. R. McBee, 1. (Dup.) D. C. Shelton, 2, Inman. J. R. Gott, 2, Victoria. A. W. Hilliard, 2, Whitwell. H. C. McRee, 2, Whitwell.

Marshall County—W. F. Smith, 1, Delina.

Maury County—L. E. Ragsdale, 20. T. Bledsoe Brown, 28, Frierson. C. Y. Clarke, 1, Mount Pleasant. J. L. Hayward, 20, Timmins.

Montgomery County—R. B. Macon, 1, Fedonia. B. R. Ussery, 3, Shiloh, J. E. Moseley, 1, Clarksville.

Morgan County—Reid Russell, 5. N. L. French, 5.

Obion County—John A. Self, 1, Clayton.

Overton County—J. M. Billings, 1, Oakley.

Perry County—J. S. Daniel, 2, Tom's Creek.

Rhea County—R. C. Miller, N. G., Sheffield.

Roane County—J. A. Sienknecht, 2, Oliver Springs. J. G. Eblen, 45, Paw Paw. J. L. Goodwin, 45, Kingston. E. S. Phillips, 1, Eagle Furnace. John Roberts, 5, Lawnville.

Robertson County—C. B. Bell, 2, Adam's Station. J. J. Covington, 1, Cross Plains. R. L. Woodard, 1, Springfield.

Rutherford County—S. T. Rucker, 2. C. A. Walters, 3. J. T. Harris, 3, Duvall.

Sevier County—W. P. Atchley, 6, Cattlettsburg. W. A. Cattlett, 5, Henderson Springs. G. B. Huffaker, 5, Henry's Cross Roads. W. S. Ogle, N. G., Stinnett.

Shelby County—W. T. Black, 7. W. T. Braun, 7. Allison Brown, 7. B. J. Cook, 7. L. C. Feemster, 7. L. P. Furbish, 7. Elizabeth C. Kane, 2. R. B. Gardner, 7. A. L. Ludwick, 133. R. H. Mitchell, 15. Moore Moore, Jr., 7. L. L. Meyer, 20. Percy L. Smith, 2. J. C. Walker. (Dup.) H. S. Wolff, 47. M. J. Waddington, 50. W. B. Carter, 7, Bartlett. J. H. Ricks, 7, Brunswick.

Stewart County—J. L. Sadler, 1, Tobaccoport. B. N. Jobe, 3, Wynne. W. T. Greene, Big Rock.

Sullivan County—T. J. Fain. J. H. Delaney, 53, Bristol, Va.

Sumner County—T. H. Brown, 2. G. T. Love, 8. E. L. Gleaves, 2, Avondale.

Trousdale County—A. G. Donoho, Jr., 2, Hartsville.

Washington County—R. W. Dulaney, 8, Johnson City. A. W. Stiles, 29.

Wayne County—B. F. Johnson, 2, Clifton.

Weakley County—Lee F. McKay, 1, Martin.

Williamson County—Wade H. Barnett, 8. J. Edgar Bell, 2, Brentwood. Young W. Haley, 1, Thompson Station.

Wilson County—A. Oscar Eskew, 2, Partlow.

Mississippi—J. W. Gresham, 10, Blacklands.

294 REPORT—STATE BOARD MEDICAL EXAMINERS.

EXHIBIT B.

Office of Secretary


STATE BOARD OF MEDICAL EXAMINERS.

TRENTON, TENN., -----1898.

County Court Clerk-----County.

Dear Sir—I forward you by this mail two (2) blanks for your report of registrations of physicians in your county, and also the names of those who have died, or moved off, since July 1, 1897, to July 1, 1898. Use one for your report now and the other for your January report. The face of the report and the blanks explain themselves. Read carefully the act copied in the face of the report. Please send in report as promptly as you can. For this service the law prescribes a fee, which I will remit to you as soon as I can review your report. I would like for your report to begin July 1, 1896.

Yours truly, T. J. HAPPEL, M.D., Secretary.

 I enclose you also copy of Acts.


 Do not register in future any physicians except those who present you a Certificate from the Board of Examiners. T. J. H.

EXHIBIT C.

OFFICE OF COUNTY COURT CLERK -----County.

-----TENN.,-----18-----

T. J. Happel, M.D., Secretary State Board of Medical Examiners, Trenton, Tenn.:

Dear Doctor—I forward you the following list in accordance with section 4 of the Amendments to the Medical Law, passed April 5, 1897, and approved April 29, 1897, it being an act requiring county court clerks to “hereafter, beginning the first Monday in July next, and at the end of every six months thereafter, report to the Secretary of the Board of Medical Examiners, all such registrations in his office, together with a list of the deaths and removals from his county of those physicians who have registered or may hereafter register in his office; for which service the clerk shall be paid by the Treasurer out of the funds of the Board of Medical Examiners ten cents for each name registered.” [Senate Bill No. 268, section 4.]

The following physicians have registered in my county since July, 18-----, January, 18-----, to date:

Name	Age	Medical School	Date of Graduation	Remarks
-----	-----	-----	-----	-----
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The following physicians have died since my last report, July, 18-----, January, 18-----. [Give names and post office]

The following have moved: [Give names, post office, and place to which they have moved.]

-----County Court Clerk.

AN ATTACK OF DIPHTHERIA ON THE NINETY-SIXTH DAY AFTER THE ADMINISTRATION OF AN IMMUNIZING DOSE OF ANTITOXIN.

BY JOHN M. MAURY, M.D.

Surgeon to St. Joseph's Hospital, the City Hospital, the Lucy Brinkley Hospital, and the Leath Orphan Asylum, Memphis.

The following cases are briefly reported to show, approximately, the time an immunizing dose of diphtheria antitoxin may be effective. I say approximately, because I do not know that the individual was exposed to the contagion, without developing the disease, before the time when he was exposed and did develop it.

On December 2, 1898, about 11 P.M., I was sent for to see J. G., male, age 15 years. He had been feeling badly all day, and about 5 P.M. complained of sore throat and headache. When I first saw him his temperature was $101\frac{1}{2}^{\circ}$, pulse 100. The throat presented some redness and a white patch on the left tonsil. The next morning his temperature was 102° , pulse 110, and he complained a great deal of headache. The white spot on the tonsil had enlarged considerably and extended on to the posterior pillar of the fauces. A sample for bacteriologic examination was taken from the throat, and 2000 units of antitoxin administered. The antitoxin was repeated in twelve hours, and his recovery from that time was rapid. The city bacteriologist reported a growth of the Loeffler bacillus from the sample sent him.

On the afternoon of December 3 the patient's younger brother, E. G., aged 12 years, was given an immunizing dose of 500 antitoxin units. He did not develop the disease at this time, though he had that morning assisted his brother in brushing his teeth.

On March 9, 1899, I was called to see E. G. He had been ill with fever and sore throat for about fifteen hours. On examination his throat showed a spot of membrane on the right tonsil and another on the posterior wall of the pharynx. A swab from the throat examined by Dr. S. E. Rice showed numbers of the Loeffler bacillus. A few hours later 2000 units of antitoxin were administered, and in twelve hours the temperature was normal, and the membrane beginning to separate at the edges. His recovery was rapid.

The time, about ninety-six days, corroborates that given by the textbooks as being the period of immunity conferred by an immunizing dose of diphtheria antitoxin, and the fact that one dose, of 2000 units, gave in this case such marked and permanent effect, may be interpreted as showing that there was still some influence being exerted by the immunizing dose which had previously been given. Of course my experience is comparatively limited, but I do not recall a case with so much local manifestation in which one dose of 2000 units so completely mastered the disease.

THE "STEEP CURVES" OF TYPHOID FEVER—NEPHRITIS—CARDIAC VALVULAR DISEASE—CHRONIC APPENDICITIS—THE RASH OF TYPHOID FEVER—CROUPOUS PNEUMONIA.*

BY H. A. HARE, M.D.

Professor of Therapeutics in the Jefferson Medical College and Physician
to the Hospital.

In my clinic today I shall not have time to speak exhaustively of any one of the cases which I bring before you, for the number of cases is so great and all of them are so interesting, that on the one hand the careful study of each is impossible, and on the other I do not like to let the opportunity of your seeing such interesting cases pass by.

Case I. The first patient that I wish to speak of is one who is passing through the third week of typhoid fever, and who had a temperature ranging between 103° and 104° during the early periods of her disease. As you notice, all her symptoms are now very moderate, her tongue is moist, her mind is clear, the pulse is good, and her facial expression is excellent. The only point about her to which I wish to call your attention is her temperature chart. During the last five days you will notice that the evening temperature has been fairly high, but the morning temperature has been gradually approaching nearer and nearer to the normal point. This has resulted in the development of a number of long sweeps in the temperature, which illustrate a period of the disease which has received different names by different well-known writers on typhoid fever, as for example, Murchison, Wunderlich and Strümpel. This period has been called by these writers the "period of changing fortunes," the "period of steep curves," and the "period of ambiguity," all of which terms indicate the fact that to the untrained eye such a chart would indicate in the evening that the patient was quite ill and the next morning that he was on the road to recovery.

Case II. The second patient is also one who has passed through the most dangerous period in his disease and is beginning his convalescence, having had for the last two days an entirely normal temperature. This normal temperature was approached about a week ago, and we thought at that time he was on the high road to recovery, but as you will notice the temperature immediately rose on two consecutive days almost to 103° , and on one occasion to $103\frac{1}{2}^{\circ}$, and it was necessary to give him two sponges to reduce his temperature, although it had not been high enough to require hydro-therapeutic procedures for a week previous. At first glance we might suppose this sudden rise of temperature was indicative of a relapse, but the fact that none of the characteristic symptoms of typhoid returned, and that the fever suddenly sank to normal, indicated that it was not a relapse, but merely a recrudescence. Further, you will

*A Clinical Lecture delivered at the Jefferson Medical College Hospital, Philadelphia.

notice that the fever ended by a sudden fall to normal, which was preceded by a profuse sweat. As every other cause of a rise in temperature has been exhausted, I believe that this sudden upset is due to some septic absorption or some absorption of poison from his alimentary canal, and this belief is confirmed by the fact that a profuse sweat occurred, which probably marked the overcoming of the infection by his system, and which perhaps aided in the elimination of toxic material and in the reduction of his temperature. The case is of interest as illustrating the little "squalls" which sometimes arise during the course of typhoid fever and cause the attending physician much worry.

Case III. The next patient is a woman who comes to us with a history that she has suffered for a number of weeks with some edema of the lower extremities and puffiness of the face, particularly about the eyes. Her color is still fairly good but she looks somewhat anemic, and an examination of her blood shows 2,400,000 red cells and 5000 white cells, the latter number being about normal, but the red cells being, as you perceive, about half of normal. Her hemoglobin has also markedly decreased. She suffers from a good deal of pain in the lower extremities, particularly at night, and has some headache, dyspnea, and palpitation of the heart. Examination of her urine reveals a considerable quantity of albumin and casts, both of the granular and hyaline character. As I have so frequently lectured to you about the various forms of nephritis, I shall not do so today, but shall devote the next fifteen minutes to quizzing you upon the various forms of nephritis and upon their treatment. I wish to say to you, however, in regard to the treatment, that diet is an exceedingly important feature, and that it should be carefully regulated in all such cases. I also wish to point out to you that in many instances it is entirely unnecessary to confine the patient to skimmed milk, for unless they have faulty digestion of the fats there is no reason why they should not have the additional advantage of the cream in the milk which they take. We will give this woman, because of her somewhat feeble heart, 5 minims of the tincture of digitalis three times a day, with 2 minims of the tincture of cantharides to stimulate her diseased and torpid kidneys to the greatest degree of activity which is possible and safe, and direct her to return to us should the 6 minims of tincture of cantharides produce any vesical irritation, or should her urine decrease in quantity instead of increasing, which would indicate that the cantharides is irritating the kidney rather than stimulating it.

Case IV. The next patient I show you is one who you will notice is exceedingly dyspneic, his face is somewhat puffy, his skin is pallid, and even the subcutaneous tissues of his thorax seem to be slightly engorged and waxy in appearance, as they are apt to be in cases of parenchymatous nephritis. When I expose his chest and abdomen you will notice he has a large, protruding mass just below the border of the ribs in the right side, which extends over into the epigastrium, and which is somewhat soft on palpation. This mass is a very much enlarged and engorged liver, which is over-distended with blood as a result of his cardiac valvular disease. An examination of his heart at the apex shows a feeble mitral regurgitant murmur, possibly because the heart muscle is so dilated and feeble that it cannot make a loud murmur. An examination of his heart a little to the right of the sternum about the fifth interspace, also reveals a systolic murmur, which is one of a rather rare lesion—tricuspid regurgitation. As you know, tricuspid regurgitation quite frequently follows mitral regurgitation in its advanced stages. The blood regurgitating back from the left ventricle into the left auricle becomes dammed up in the lung, increases the strain upon the right ventricle,

and this in turn upon the tricuspid valve, and it is because of this failure of the tricuspid valve to perform its function properly that we have so much engorgement of the superficial veins of the neck and tremendous enlargement of the liver. The almost complete absence of the first sound of the heart in this case illustrates a condition which the French physicians are fond of discussing, namely, that which they call "asystole." Like the feeble murmur that I have just mentioned, it is due to dilatation and feebleness of the heart muscle. An examination of this man's urine reveals hyaline casts and albumin. A large part of this albumin is probably due to the congestion of his kidneys, which in turn is due to the impaired circulation, but the hyaline casts indicate in addition that he has a parenchymatous nephritis, so that the patient is suffering from a complication of diseases, and the prognosis for that reason is not very favorable. The drug which I shall prescribe for him is apocynum cannabinum, a drug which has been known to the profession for many, many years, but which has not received the attention which it deserves as a remedy in cardiac and renal dropsy, for it is a stimulant to the kidney, and has an action allied somewhat to that of digitalis. One of the reasons that it has not been as much used as it deserves is, that very frequently apocynum androsemifolium is substituted for it, and has an entirely different action. You must, therefore, take care that you really get apocynum cannabinum. We will give this man 3 minims of the fluid extract of this drug three times a day, and increase it gradually until it produces a tendency to laxity of the bowels; it ought not to be given up to the point of very active purgation.

Case V. The next patient I show you is a very unusual case. It is a man who has been ill with typhoid fever for about ten days, and who has all over his chest and back an exceedingly profuse rose rash of typhoid fever. In its distribution and profuseness it looks almost like that of chicken pox, but you will notice that the rash is not papular and is not becoming pustular, as it would have done in chicken pox after a number of days. Each individual spot, while bright red, disappears on pressure, and in addition he has no eruption on his face, as he would have in chicken pox. Further than this the temperature and all the other signs of typhoid fever are present, including the Widal reaction. I think that you will practice many years before you will see a typhoid rash as profuse as it is in this case.

Case VI. The next patient is a woman who, for two years, has been losing flesh, has suffered from pain in her bowels, has had moderate chills and moderate fever at times, and has suffered from either obstinate constipation or diarrhea. In both conditions, however, the stools have been mixed with mucus, and movements have been accompanied by griping pain. She is either suffering from tubercular peritonitis (and I must confess that the appearances and signs on palpation of her abdomen are strongly indicative of this) or she is suffering from chronic appendicitis, with secondary infection of the colon from the appendix. I have asked Professor Keen to see her with me in consultation, and we have both decided that chronic appendicitis is the most probable diagnosis. She has consented to an operation by our advice, and the operation will be performed with confidence, because if it is chronic appendicitis the removal of the appendix will give relief, and, in the event of its being tubercular peritonitis, as you well know, opening of the abdominal cavity in this disease produces extraordinarily gratifying results. In either event, therefore, the operation will be followed by benefit.

Case VII. The last case that I show you is a woman who was brought to the hospital last night with fever, incessant cough, a dry tongue, and rapid pulse. It

almost impossible to examine her chest thoroughly, because she has been so blistered anteriorly and posteriorly that we cannot auscult her chest without causing her great pain. Her most annoying symptom is incessant, dry, unproductive cough, which prevents sleep and which is so constant that she scarcely breathes without coughing. Careful auscultation of her chest reveals that she is in the stage of resolution of acute croupous pneumonia. Fine, moist rales can be heard all over her right lower lobe, and she tells us she has had the characteristic blood-tinged sputum until within the last day or two. At present she needs little more than careful nursing, the use of stimulants as they are needed, and above all other things small doses of morphin or codein to allay this excessive and unproductive cough and enable her to sleep, for she has slept scarcely at all for a number of days. I have no doubt that a few hours of refreshing sleep will do her a great deal of good. Care must be taken that enough morphin is not given her to produce persistent somnolence.

I have shown you today an array of cases which you can see in few other hospitals, even if they be situated, as this one is, in the heart of a great city, and yet this array of cases differs but little in its importance from most of the others which I have had the pleasure of showing you so far during this year.

222 South Fifteenth Street.

INTELLECTUAL KINGSHIP.*

BY G. T. FITZHUGH.

MEMPHIS.

Ladies and Gentlemen :

When invited to speak on this occasion, so suggestive of the supremacy of mental attainments, to an audience composed of the cultured citizens of this educational center, and especially to capable, ambitious young men just entering a profession which yields its richest rewards to broad, unselfish intellectuality, I thought that I could discourse on no theme more appropriate than Intellectual Kingship, the dignity, may I not say with due reverence, the divinity, of the human mind.

When the Creator, by the fiat of his intellect, called into being this vast universe, with its countless shining worlds and glowing suns, bewildering us with their infinite beauty and overawing us with their sublime grandeur, he impressed upon every created substance and force, from the smallest atom of dust to complex solar

* An Address delivered to the Graduating Class of the Memphis Hospital Medical College, 1899.

system, the changeless law of its being, that it should forever be governed and controlled by the Supreme Mind which was its perfect Author and Finisher.

The heavens and earth, the firmament "fretted with golden fire," nature with all its infinite variety of glories, is but the product of mind, the wonderful expression of divine thought.

But marvelous as this outward system is, the perfection of harmony, the revelation of eternal laws, the exemplification of omniscience and omnipotence, yet to no part of it was transmitted any of the attributes of the sovereign to whose will it was to remain in constant subjection.

Man alone of all created objects was thus to be divinely dowered; combining within his complex and anomalous nature almost every element and force in the boundless universe, from dust to Deity.

He was to represent the world in miniature; and amazing and mysterious as his physical being is, surpassing in the complexity of its conception and creation all other forms of material energy, it was only his mind, of which his body is but the servant, that was stamped with the image of God Eternal, and in the imperial palace of man's brain this divinely impressed intellect "sits enthroned, diademed and sceptered in sovereignty."

Swaying the scepter of power over all other created things, free even to throw off the allegiance which it justly owes to the Creator whose divinity it shares, it is, next to the Supreme Intellect, entitled to our highest homage and profoundest reverence.

We have heard and read much in former times of the divine right of kings. Wars have been fought, dynasties crushed and empires changed in the struggle to perpetuate this dangerous doctrine, as foolishly absurd as it was false and foundationless.

The idea that any man, regardless of his mental gifts, capabilities and character, who, cast upon the shore of human life by the sea of circumstance, happened by this accident of birth or otherwise to be placed upon a glittering throne, thereby became vested with some divine virtue which made him the master of his fellow men, was conceived in a spirit of vaulting arrogance and insulting defiance of Deity; and it is not strange that the literature which sought to promulgate such senseless twaddle should long since have become neglected rubbish, covered o'er with the dust of an-

tique time. No less to be censured and condemned is the more modern tendency on the part of many to put Mammon on the throne, worshiping wealth as though it were a divinity, claiming that it is the material and not the intellectual that is stamped with the true signet of sovereignty—forgetting in their grasping greed for material gain that at the very birth of the world the crown of royalty was placed by Deity upon human intellect, the only earthly king, therefore, who has or ever had a divine right to rule and to receive the voluntary homage of noble freemen.

To the honor and glory of mankind, be it said, we are fast approaching the true democracy in which no other distinction than that divinely ordained shall maintain. Already, despite false standards erected by minds dwarfed and darkened by the debasing influence of material forces, the conviction is now well nigh universally cherished that the highest manifestation of true greatness and kingly power is to be found in the man who has constantly in full play all of the mighty faculties with which he has been dowered, and develops to the highest possible extent the variety of virtues and versatility of talents which he possesses in happy combination, not like single gems, brilliant by isolation, but like jewels in a crown of glory, united by the golden band of a complete and symmetrical character.

No one, however gifted in speech, however fervid his fancy or imperial his imagination, can portray in words the power and possibilities of the human intellect when thus fully expanded and roundly developed.

All the creations of literature, science and art, all laws, all governments, all history, are but the varied expressions of its thought.

Grandly true is the Emersonian epigram that every institution is but the lengthened shadow of a man.

But in the contemplation of these God-given endowments and wonderful achievements, there is some danger of our exaggerating our individual place in the great procession of the ages, and perchance acquiring the habit of that German of whom Coleridge tells us, who always took off his hat and made a profound bow when he spoke of himself.

Rather, however, let us fully appreciate the great responsibility which is coupled with the possession of such divinely-bestowed powers and opportunities; and first let me note that we are urged

no less by a most sacred obligation to Deity than by every consideration of our highest welfare, both in time and eternity, to live as far as in our power lies the true intellectual life. By this is not meant, necessarily, the acquisition of great learning and profound erudition, proper and praiseworthy as this most certainly is, but rather the education of the intellect to that state where it delights only in beautiful and vigorous thinking; and few are they who can plead paucity of endowment or opportunity in palliation of their failure to reach this plane of mental life, for as Phillip Gilbert Hamerton well says, "This preference for higher thoughts over lower thoughts may be the habit of a mind which has not any considerable amount of information, and this may be very easily demonstrated by a reference to men who lived intellectually in ages when science had scarcely begun to exist, and when there was but little literature that could be of use as an aid to culture. Whoever reads English is richer in the aids to culture than Plato was, yet Plato *thought* intellectually."

How much richer in priceless opportunities for noble development are we today! All that human genius has achieved, all the creations of fancy and imagination in the sphere of poetry and fiction, all that the mind of man has wrought out in the domain of philosophy and science, are ours to possess and enjoy. To this great inheritance of the world's intellectual treasures every one is born an heir. What opulence of equipment! What wealth of resources!

"The world exists for the education of each man." The great design of nature's works is to furnish a school for intelligent beings, in order that the germ of future greatness implanted in the soul of every man may be developed and his correspondence with his Creator constantly increased. But the trouble with many of us today is that we seek only that culture which is dwarfed by the base spirit of utilitarianism. Instead of regarding the universe as a great storehouse of educational forces and man himself as greater than anything that educates him, instead of interpreting the whole range of human life as a complex apparatus by which the powers of the soul may be educated to their noblest height, we turn these powers into a number of mere passive instruments for the conquest of nature and the accumulation of results. What we want is a more complete and symmetrical development of our humanity by

becoming more powerful in intellect, wider in knowledge, and truer in feeling, thus gaining a step in the order of being to which all the distinctions of earthly nobility are but dust and tinsel.

If we would attain this end we cannot be too strongly impressed with the importance of sounder thinking and higher ideals. We should proclaim that "the mind is the standard of the man," and only those of lofty thought and noble life should command our highest adoration; for it is a law of influence that we become like those whom we habitually admire. The spirit of men and women truly great diffuses itself and exerts a molding influence on the lives of all who invoke its presence. The character of individuals is determined by the heroes enshrined in their hearts. "From the admiration of things noble cometh ever an emulation of the same."

In truth, the advancement and development of mankind are largely attributable to the full homage which honest hearts have gladly given to those heroic souls who have led and guided men to higher and nobler goals.

"On the doctrine of influence the whole vast pyramid of humanity is built," hence the demand of the age for men and women of broad culture and unselfish aims, whose trained and educated minds may not only solve the vexed problems of life, but maintain the true standards of success, and by the powerful influence of their worthy examples may change, elevate and ennoble our ideals, thus lifting us out of the valley where men strive solely for the material and ephemeral things of life upon the mountain of knowledge, whose lofty peaks, rising above the clouds of ignorance, selfishness and doubt, are the first to catch the resplendent and dazzling scintillations from the Divine Orb, sparks of fervent heat as well as radiant light with power to enkindle the common mass of human mind.

It has been recently said by a distinguished writer that "in America, with its boundless material resources, the struggle not merely to advance the kingdom of the mind, the things of the spirit, but to keep them from slipping farther and farther into the background, must always be an intense one."

It is the sublime mission of our schools and colleges to insure the success of this great struggle. And while some of them seem to give precedence to physical over mental attainments, carrying to excess the cultivation of athletic sports, necessary and laudable

in moderation, no one need entertain the fear that the colleges of our country will ever consent to put the kingdom of the mind below the kingdom of the body. In the inspiring words of Geo. Wm. Curtis, "the college shall, in the future as it did in the past, teach the American youth the secret and methods of material success; but above all, it shall admonish him that man does not live by bread alone, and that the things which are eternal are unseen. With one hand it shall lead him to the secrets of material skill, shall equip him to enter into the fullest trade with all the world, but with the other it shall lead him to lofty thought and to commerce with the skies."

True it is, my friends, that the development and attainment of this high type of noble culture will require a large part of our brief lifetime, but the time and toil devoted to it will be in no way commensurate with the richness of its rewards.

It were impossible to do more than attempt to suggest them. The acquisitions of a thoroughly cultivated mind furnish the life a perennial fountain of joy. Its solitude is peopled with memory's glowing images and fancy's vivid creations. Its possessor has a treasure that knows no exhaustion, inflicts no retributive sting, and knows no equal but the joy of an approving conscience and a smiling heaven.

This intellectual culture enables us to hold sweet communion with the mighty spirits of the past, bringing us into happy relation with the best society in all ages, with the tenderest, the bravest and the purest souls who have adorned humanity, making us denizens of all nations, contemporaries of all times, and giving us practical and pleasing proof that the world has been created for us, for our solace and enjoyment. Friends may grow cold, fortune may cease to wreath her face in smiles, adversity may cast its sable shadow o'er our path, but, thank God, there is nothing that can deprive us of the pleasure of the elevating companionship of these noble minds, whose great thoughts live and glow upon their immortal pages.

Thus enraptured we may walk, in imagination, with the world's noblest spirits, through the most sublime and enchanting regions, regions which, to all that is lovely in the forms and colors of earth, "add the gleam, the light that never was on sea or land, the consecration and the poet's dream."

Even if we fail of reaching the ideal intellectual life, we will have the inward assurance that "our aspiration has not been all in vain, but has brought us a little nearer to the Supreme Intellect whose effulgence draws us whilst it dazzles." And as has been well said, "here is the true secret of that fascination which belongs to intellectual pursuits, that they reveal to us a little more and yet a little more of the eternal order of the universe," establishing us so firmly in what is known, that we acquire an unmistakable confidence in the laws which govern what is not and never can be known, until the limitations imposed by earthly environments are thrown off and our minds, by continual development and expansion in the great school of eternity, shall become capable custodians of the secrets and plans, the laws and principles which obtain in the great hierarchy of angels and seraphim. Such is the divine doctrine of development in the intellectual life.

Limitless is the range and sweep which it gives to our highest hopes and loftiest aspirations, furnishing us the noblest incentive to a higher life, and implanting within us an unalterable faith in man's progress and advancement, substituting for Nordau's false and pessimistic doctrine of degeneracy the more encouraging and exalting declaration of Drummond, that there "is an ascending energy in the universe, that all things are rising, all worlds, all planets, all stars and suns, and better still, that all nature is on the side of the man or woman who tries to rise."

But let us remember that there can be no true progress except along the lines of intellectual and spiritual life. Our efforts to advance any other than intellectual attainments must be vain and ephemeral, because interrupted by the cruel process of death. But minds survives the wreck of worlds, and will be manifesting the fruits of its eternal improvement and enrichment, in the exercise of its infinite powers, even when time shall lie dead on its golden throne.

When we have fully grasped the import of the great truth that intellect alone is immortal, and that its immortality does not mean simply a prolonged existence, an eternal monotony, but a continual growth in knowledge, a constant development of a closer correspondence with its Divine Author, then, indeed, if never before, will we be able to fully realize that this death-defying, God-like intellect is in truth creation's crowning glory, and that its wonder-

ful achievements here are but the pledge and promise of still more glorious conquests hereafter.

The belief now generally accepted that we shall enter upon this new life with the same mental character and capabilities which we have here acquired, no greater and no less, is not only in harmony with our best conception of divine justice, but furnishes the weightiest argument in favor of our availing ourselves of all the means afforded us for the highest possible cultivation of every faculty of the mind and spirit; for by this intellectual and spiritual development we are, as I have attempted to indicate, not only drawing nearer to the great goal of human endeavor, and providing ourselves with the most satisfying pleasures known to earth's inhabitants, but are at the same time preparing to enlarge the full measure of our happiness in that world whose divinest joys, limitless possibilities and boundless acquisitions shall be known only to the soul conscious of its enormous potentialities and kindled with a desire constantly to rise in the scale of intellectual being until by continual advancement it shall reach a summit of glory and blessedness far beyond the ken of brightest seraphs, and thus be able to stand beside immensity, infinity, eternity, unaffrighted and undismayed.

Young gentlemen of the graduating class of the Memphis Medical College, these pleasures, privileges and powers which I have but too poorly portrayed may be yours to possess and enjoy, in connection with achievements which will add new glory to your noble profession, if you will but claim your share of the priceless heritage which the past, by its toil and sacrifice, by its courage and blood, has so generously bequeathed, and find in the contemplation of the boundless possibilities of a fruitful future sufficient inspiration for the complete consecration of every faculty of the mind, every energy of the soul, to the conscientious study of the vital problems of the present, whether affecting your professional life or the exalted duties and responsibilities of American citizenship.

No young men ever entered upon honorable careers under more auspicious and inspiring circumstances, for never before did grander opportunities open up before aspiring genius, never did more dazzling prizes allure the eyes of noble ambition.

Wonderful indeed have been the recent progress and advancement made in every department of human endeavor, especially in

the great science which unfolds the laws by which our physical and mental beings are constructed and controlled, and yields its far-reaching results for the amelioration of suffering humanity. But the brightest achievements of the past must soon pale into seeming insignificance under the blazing light of still more brilliant conquests, for who can doubt that the intellectual X-rays of the twentieth century will penetrate the hidden caskets containing nature's most valuable secrets, and will startle the world with beneficent discoveries and amazing revelations?

Truly we live in a grand age; we live on a magnificent continent; we are citizens of the greatest of earthly Republics. The mighty present is stirred with the breath of a new life, is big with epoch-making events; and if you would participate in shaping momentous issues, if you would prove yourselves worthy of your high calling, true benefactors of your race, let this occasion be for you a commencement in truth as well as in name, the beginning of your education in its grandest sense, the gradual unfolding of every latent power of mind and soul, the continual development of all the nobler faculties of your being, in order that you may secure that inward ripening and outward expansion of your lives which will enable you to give trend and direction to the most advanced thought of your time, assist in destroying the enemies of health and virile strength, wield a potent influence in combating the insidious evils of the world, directing its vast energies for good, making life beautiful and glad and worthy, governments just and wise and beneficent, society interesting, elevating and ennobling, thus opening wide to others the gates of truest happiness and winning for yourselves rich and glorious rewards, crowning with the most brilliant and sublime success your personal and professional careers.

ABDOMINAL SECTION UNDER COCAIN.—H. Robb (*Jour. Amer. Med. Assn.*, Feb. 11, 1899) operated for a retroverted uterus by means of cocain anesthesia. He opened the abdomen, broke up adhesions, and replaced the uterus and stitched it to the abdominal wall. During the operation it was noticed that any traction on the ovaries was intensely painful. The operation was done under the cocain because the woman was suffering from cardiac trouble associated with goiter.—*Amer. Jour. of Obstet.*

HERPES ZOSTER.*

BY JOHN EDWIN HAYS, M.D.

Professor of Anatomy and Dermatology in the Hospital College of Medicine, etc.
Louisville, Ky.

This patient, L. E., is a colored woman aged 48 years. You will notice she has an eruption on her back, and from its appearance it would be difficult to say just what the trouble is. I judge, however, that it is a case of herpes. The eruption began near the center of her back and ran around the left side to the front of the chest, following the course of the intercostal nerves. You will notice now a number of little elevations, but the characteristic part of the trouble has disappeared, that is, the small vesicles, and we simply see what is left. The remains of the trouble and this grouping together of little patches, would seem to indicate at one time there were vesicles, and we will therefore make the diagnosis of herpes zoster.

This disease we frequently find running along just following the track of the intercostal nerves; in fact the disease in this situation is due to an irritation or inflammation of the terminal filaments of those nerves. In other words, a peripheral neuritis. The cause of the trouble has never been satisfactorily determined and explained. We only know it is a disease which we frequently encounter upon different parts of the body, always involving the sensory nerve filaments of the integument. I have a case under treatment now having a well-marked patch in the right groin.

The patient, who is a boy aged 16 years, recently fell through an elevator shaft a distance of thirty-five feet, fracturing both bones of the left arm and bruising the left hip. This patch of herpes in the right groin developed fourteen days after the injury. I believe there is no connection, however, between the two, and in all probability the herpetic trouble would have developed had he not received the fall.

We have in herpes zoster numerous little vesicles collected in patches and scattered over the surface, differing from the vesicles of eczema on account of their having firm walls. The walls of the vesicle are much thicker in a case of herpes than in a case of vesicular eczema, consequently the walls do not rupture, but remain unbroken for a number of days.

This patient complains of shooting pains of a burning character throughout her chest. These burning pains are generally experienced a few days before the appearance of the eruption in a case of herpes, and sometimes you will be able to predict a crop of herpes from the symptoms of which the patient complains even before the patch appears. After the eruption takes place the patient still complains of a burning sensation rather than itching. It is very annoying and frequently prevents the patient obtaining

* Clinical Lecture delivered at the Hospital College of Medicine, Louisville.

the necessary rest. After the trouble apparently disappears the peculiar sensation of the part still remains, and the patient will complain as if a bandage had been tightly applied to that part of the chest. That may remain for weeks or even months after complete disappearance of all lesions upon the affected part. The trouble may appear in patients who seem to be otherwise in a perfect state of health, and in such cases I rarely administer any medicine internally. My local treatment consists of such remedies as will be soothing and protective to the affected parts. In order to try and overcome the intense burning sensation I have found that either a solution of menthol in olive oil or glycerin, or the use of oil of peppermint, to be very efficacious. My preference is to simply use oil of peppermint, applying the remedy with a camel's hair brush every few hours. It seems to allay the burning and cause a sensation of coolness to the part. There is no doubt that the oil of peppermint assists very largely in bringing about a disappearance of the vesicles.

In the case before us I think it is unnecessary to give the patient anything, as the patches are disappearing, and in two or three days they will likely be entirely gone. She seems to have a variety of complaints, judging from her statement of her symptoms; but, as you well understand, the statements of this class of patients are not to be relied upon to any great extent. She says this eruption on her back has a tendency to disappear and recur. That is true in many cases of herpes—there is a tendency to recur. The reason for this we do not know. It is like some other forms of skin trouble—whenever you relieve it you cannot say that recurrence will or will not take place in any specified time.

Many authors claim that quinine is an excellent remedy to be given internally—that the first thing to do is to thoroughly cinchonize a patient suffering from herpes zoster. As already indicated, I rarely resort to internal medication in the treatment of this disease, but rely solely upon local applications, and have found this plan eminently satisfactory. I have a patient, quite a fleshy woman, who is troubled two or three times a year with an outbreak of herpes on the posterior part of the thigh, over that region which is traversed by the small gluteal nerve. The lady has been subject to these attacks for several years; she has not less than two attacks during the year, sometimes three or four, but usually two. The outbreak occurs on the part of the thigh where the integument is supplied by the small gluteal nerve.

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EDITORIALS.

THE PROFESSION AND THE LAW.

The *American Gynecological and Obstetrical Journal* has issued a circular letter calling attention to an editorial in their April number on the relation of the medical profession and the national government, advocating a department of Public Health, with a medical man in the cabinet. The need of such a department would seem to be sufficiently plain to render entirely superfluous any line of argument intended to support it. The health of a people should be of as much importance as their money, their crops, their postal facilities, their army, or their navy, and if this is true, the governmental department of health should be allowed the dignity of an individuality and not remain an excrescence on the Treasury Department.

We do not deem it fruitful to attempt to give our individual opinions as to the organization of the department of health, to define its jurisdiction or the extent of its powers. The theoretical ideal would be to have it control at least all quarantines and all boards examining for license to practice medicine, though these functions would doubtless be denied it by States Rights antiquaries and the satellites of mushroom colleges. Our purpose is to speak rather of how a state of affairs can be brought about whereby medical men may not only have and express opinions on this and kindred matters, but can command a respectful consideration of their wishes. To our mind there is but one way, and that is to

become, in a measure, politicians. We do not expect, and it is far from us to wish to see medical men degenerate into ward bummers, heelers and bosses, but when candidates for the Legislature, State or National, present themselves, let us inquire of them how they stand on topics in which we have an interest. Let them know that the medical profession and its following, representing a certain definite number of votes, desire a certain thing done or undone, and on their attitude toward it will depend the attitude of these voters toward them. Let this be done in each community, and let the knowledge be so disseminated that each of us can go to the polls with a definite idea of how each candidate stands on questions which affect the welfare of the physician. The only thing that can wield a tangible influence with an average legislator is a tangible number of votes. We can influence not only our own, but the votes of relatives and friends, and in this way and only in this way can we command a deference to our wishes in regard to laws. The influence of the LANCET can hardly be sufficient to secure the establishment of a Department of Public Health, but we trust it will be great enough to aid in securing a Legislature for Tennessee which will give us again a satisfactory medical law. The law we had, was very effective. The law we have, licenses every graduate of a Tennessee school without examination. Without the State Board examination before them students will have only their own college requirements to meet, and these will grow "small by degrees and beautifully less" lest the school gain a reputation for being hard to graduate from, and lose its patronage to less exacting sister colleges.

To save our schools from deterioration, to save our profession from being invaded by incompetents, to save the people from the dangers attending such conditions, let us take enough interest in politics to find who is on our side, and be he great or small, democrat or republican, freetrader or protectionist, imperialist or no, gold bug or free silver advocate, it is our duty to wreck his political aspirations if it is in our power, rather than see him enter our Legislature and proceed to tear down our idols and erect in their stead those of a strange god. We know what a narrow escape Tennessee has just had. Who knows but the next Legislature will complete the demolishment unless deterred by an attack with the only weapons against which politicians are not proof—votes?

"WOLVES IN SHEEP'S CLOTHING."

When quackery comes to us in any of its usual forms, a glance is usually all that is necessary to enable us to make a diagnosis and let it pass. We even become so expert at times that the artistically-planned articles in newspapers which start off as news items and wind up with an ad. fail to attract more than a passing glance. But two instances have come to our notice lately where the preparation bore the hall mark of respectability, but on investigation proved such flagrant examples of trickery and quackery as would make Ayer's Cherry Pectoral and Micajah's Wafers turn green with envy.

The first of these is the vaunted "Husa," first announced by Dr. Winthrop in the *Texas Courier-Record of Medicine* for February, 1898, as a newly-discovered and unclassified Florida plant, warranted to cure the opium habit with a celerity and certainty surpassing the most extravagant claims of the Keeley cure. Considerable attention was paid the alleged discovery, especially by the *New York Medical Journal*, and thus encouraged Dr. Winthrop gave rein to his fancy and wrote further concerning the difficulties, danger, and expense attending the gathering of the plant. The crude drug was not to be had from its discoverer for love or money, because of its scarcity, which did not, however, affect the supply of the tincture, which went for \$10 for thirty fluid ounces. An analysis of the preparation by Prof. John Uri Lloyd, of Cincinnati (*Lancet-Clinic*, April 1, 1899) showed that "'Husa' is a liquid containing large amounts of sulphate of morphin, some salicylic acid, glycerin, and coloring matter, probably burnt sugar." No reply has been made to this report, and until Prof. Lloyd is furnished with a new plant containing this amount of morphin (1.5 per cent.) he will regard "Husa" as a concoction.

Number two is not of so much general interest. A year or more ago the Walker Pharmacal Co., of St. Louis, exploited a preparation of *Cineraria Maritima*, warranted to cure cataract in a manner calculated to put the Glens Falls sanitarium to shame. They sent out testimonials from doctors living in "cities" with a population of 20, including dogs, and claimed to have reports from ophthalmologists, but could not produce them. Dr. J. Ellis Jennings, of St. Louis, undertook to investigate the remedy (*Amer.*

Jour. of Ophthal., Nov., 1898). He found the Walker Pharmacal Co. located on the third floor of a building occupied by a homeopathic pharmacy, and the manager of the former is the proprietor of the latter. No satisfactory reports from any one of recognized standing could be shown, and a request for some of the preparation for experimentation was refused. It sold for \$1 for about two drams.

The writer of this procured some of the drug and used it in several cases of incipient and immature cataract. Possibly by virtue of some vegetable astringent it contained it relieved a mild conjunctivitis in one case, but on the lenticular opacities it had no effect. It will be remembered that the Walker people put Phytolin on the market a few years ago as an anti-fat and anti-rheumatic, and while it was an ethical preparation, it seems to have died out therapeutically.

“For ways that are dark and tricks that are vain” these people seem anxious to wrest the laurels from Bret Harte’s “Heathen Chinees.”

REPORTS OF SOCIETIES.

PROCEEDINGS OF THE MEMPHIS MEDICAL SOCIETY.

STATED MEETING, MAY 2, 1899.

DR. B. F. TURNER, President.

Dr. Wm. Krauss demonstrated a *Simple and Practical Process for Estimating Uric Acid*. He described Ludwig’s, Salkowski’s, Hopkins’ and other methods. These required from six to twelve hours for a result, and are objectionable on account of delay, and the great amount of labor for the small fee usually paid for a urinalysis. He described Cook’s centrifugal process, which, though rapid, depends upon the reading of a bulk percentage of a very gelatinous precipitate. The urine is treated with sodium carbonate and ammonia, to dissolve any deposited urates, and throw down the phosphates. To the filtrate an ammoniacal silver solution and ammonia are added, which retain the chlorides and cause a precipitate of argentic urate. Xanthic bodies also go down. This is packed down in a centrifuge, and the bulk percentage multiplied by the factor 0.01176, which equals the grams of uric acid

in 10 c.c. of urine. The process recommended was Bartley's. It depends upon the same reaction, but the silver is added from a buret to the hot urine, the end-reaction recognized by touching a drop to a drop of weak potassic sulfid solution. Each c.c. of $\frac{N}{50}$, $\text{Ag NO}^3 + 0.00672 =$ per cent. uric acid, if 50 c.c. of urine are taken. Urea is estimated in a Doremus tube and the ratio calculated. One to fifty or less indicates retention. The Bartley process was carried out before the meeting.

Dr. G. G. Buford spoke of the importance of the uric acid diathesis. Haig says it means death, but Bouchard has proven that uric acid can be injected into the veins of animals like water without producing any bad effect. We do not know whether this causes pain in animals, though we know that uric acid affections in man are quite painful. Tests are important to tell of both the presence and absence of uric acid. The relation between the ingestion of nucleins and the excretion of uric acid should be studied. In enuresis in children, when circumcision has failed to relieve, alkaline substances have given marked relief. Especially is this true in the cases which void an acid urine with a gush. By restricting the nucleins in the diet much can be accomplished, as in the case of a girl who had been freely fed on sweets, etc., and was unable to retain her urine. A diet of cereals has almost entirely relieved her. In the cases in which chloroform and ether are supposed to affect the kidneys, he thinks the process is a disintegration of tissue with liberation of nuclein and formation of uric acid. In acute surgical cases these effects are seldom noticed, but in chronic cases, such as chronic suppuration, etc., the tissue changes have taken place, uric acid has been formed, and the kidneys suffer.

Dr. Edwin Williams asked if uric acid was found to excess in urine with a specific gravity of 1020 or less.

Dr. Frank Jones has noticed the simultaneous appearance of pus and uric acid in the urine.

Dr. Krauss did not think such a condition as absence of urates in the urine existed; a qualitative examination is valueless, as is a quantitative estimation, if the total quantity of urine in twenty-four hours is not known and the ratio to urea not taken into account. He disagreed with authors that sodium salts are contraindicated in the uric acid diathesis. The biurate is only formed when the alkalinity of the blood is diminished. He estimated this by the Engel

modification of the Löwy-Zuntz method: A 1 per cent. dilution of the blood is titrated with 1-75 normal tartaric acid, using litmus as an indicator. He believed everybody can get at least approximative values with the Bartley process, and any druggist can make up the solutions. He thought the salicylates, sodium phosphate and piperazin the best eliminants. Diet is of greatest importance. He does not think nucleinic decomposition is the sole source of urates. The old idea that they represented an insufficient oxidation (urea formation) is erroneous.

Dr. F. D. Smythe presented a *New Operation for Shortening the Scrotum in Varicocele*. The usual vertical incision is made, the varicose veins ligated and excised, and the two ligatures used for the purpose tied together. The incision is then drawn wide apart by two retractors inserted at the middle. Sutures are now placed vertically so that the line of incision, after tying, is horizontal; that is, the first suture is passed from the upper to the lower angle of the incision, and the succeeding ones parallel to this. A material shortening of the scrotum is thus produced without removing any part of the scrotum or sac.

Dr. E. M. Holder has seen *Dr. Smythe* do this operation, and thought it was necessary to place the original incision lower than is ordinarily done, because the skin around the pubes is not loose, and will not yield to traction. He referred to *Dr. W. B. Rogers'* procedure, which consists in placing a horizontal buried silkworm gut suture in the tissues of the scrotum, and tightening it sufficiently to so constrict the parts as to form a support for the testicle. The suture is left in the scrotum.

STATED MEETING, MAY 16, 1899.

Dr. E. C. Ellett read a paper on *Some Remarks on Mastoid Abscess, with a Report of Illustrative Cases*. The cases reported were six in number.

Case I. A child, aged 4. Otitis media complicating measles. Acute mastoiditis, with the formation of an abscess, which emptied itself through the petro-squamosal suture. Sub-periosteal abscess, with necrosis of bone. Incision—curetting, antrum cleaned out and packed. Healing in four weeks.

Case II. A child, aged 6 months. Acute otitis media. Acute mastoid abscess, with perforation of the cortex. Operation. Sep-

aration of wound on fourth day by traumatic hemorrhage. The clot remained aseptic, and healing proceeded uninterrupted.

Case III. Acute mastoid abscess in a pregnant woman. Extensive necrosis of mastoid. Schwartz's operation. Lateral sinus opened. Perfect recovery in two months. Pregnancy not interrupted.

Case IV. Acute mastoiditis in adult woman. In spite of energetic treatment by ice, leeches and the Wilde's incision, the abscess broke into the digastric groove (Bezold variety). Evacuation of two cervical abscesses. Slow and imperfect recovery. This case illustrates the futility of the Wilde's incision, and its inferiority to proper surgical treatment.

Case V. Chronic middle ear suppuration and mastoid abscess. Schwartz's operation. Facial paralysis, slow recovery. At the end of four months recovery was perfect, except of the facial paralysis. No reactions of degeneration.

Case VI. Acute mastoid abscess. Almost afebrile. Schwartz's operation. Very thin cortex. Primary union except at exit of drain.*

(This patient was shown, the operation having been done thirteen days before. The result was beautiful).

The President commented on the frequency of ear troubles this winter, following epidemics of gripe and r  theln.

Dr. Alfred Moore read a paper on the *Treatment of Post-Partum Hemorrhage*. (To be published in the MEMPHIS LANCET).

Dr. Wm. Krauss said that writers usually fell into error regarding the salt solution used in medicine. It is spoken of as normal salt solution, when it should be deci-normal.

Dr. Alexander Erskine thinks that Spiegelberg is wrong in holding the accoucheur responsible for post-partum hemorrhage, for while we can often guard against it, it is not always possible. He mentioned the case of a lady who had a hemorrhage following her first labor, which was very difficult to control. A second labor was attended with a similar complication. In her third pregnancy she was taken with pains while on the street, and had a concealed hemorrhage, reached home exhausted and died very soon. In another case of placenta previa the child was born dead, and with the placenta came a free hemorrhage which almost proved fatal.

* This paper will appear in full in a subsequent issue of the MEMPHIS LANCET.

In another case he remained in the room two hours and left the uterus contracted and the woman apparently all right, but he had hardly reached the street when he was recalled and found a very dangerous hemorrhage, which he fortunately controlled. As to its frequency Jewett and Hirst say it is more common than is ordinarily stated. The hemorrhage may vary much in amount, and may be almost too slight to call a post-partum hemorrhage. Credé's method of compression by an external hand grasping the uterus is often sufficient to produce contraction. He thinks, with Lusk, that a hypodermic with some preparation of ergot should be at hand.

Dr. W. W. Taylor agrees with *Dr. Moore* that post-partum hemorrhage is less frequent as the physiology of labor is better understood, and especially is this true as regards delivery of the placenta by expression (Credé). If the uterus is compressed and held for twenty or thirty minutes, it will contract firmly. In removing clots with the hand in the uterus care must be taken to prevent dislodgement of the clot which forms over the placental site. He also agrees with *Dr. Moore* in avoiding vinegar, ice and iron applications within the uterus. Iron causes thrombosis and an irritant necrosis.

Dr. L. L. Meyer said that *Lusk's* practice in all cases was to follow delivery with a hot douche and a dose of ergot.

Dr. G. G. Buford has never had a case of post-partum hemorrhage, and hence flatters himself that he is a good obstetrician. He delivers the placenta by expression, but has discarded ergot, as he thinks it sometimes produces hour-glass contraction. Instead, he uses strychnia for several days before labor.

Dr. S. E. Rice thinks it best to keep the hand out of the uterine cavity, unless it becomes necessary to pack the cavity.

Dr. J. L. Andrews said that the only case of post-partum hemorrhage he had had was not a post-partum hemorrhage at all, but simply a slight exaggeration of the normal condition.

Dr. W. C. Griswold does not like ergot very much, but would, nevertheless, be unwilling to go to a labor case without it.

Dr. E. A. Neely has not seen a single case of post-partum hemorrhage in about 650 cases of labor, and thinks many cases so diagnosed are bleedings from laceration of the soft parts. He recognizes a great variation in the quantity of blood which may be normally lost.

The President thinks it a good rule to keep one hand on the fundus for one hour after delivery, and does not hurry the delivery of the placenta. He has seen a few cases of post-partum hemorrhage in consultation.

Dr. Erskine recalled the case of a patient delivered by a midwife, to which he was summoned, and found her dead from a hemorrhage with the uterus firmly contracted. He has seen many cases, and most writers describe it as rather common.

Dr. Moore thinks that *Dr. Erskine's* last case was a laceration of the cervix and its circular artery. The internal hand is sometimes necessary to stimulate the uterus to contract when external manipulation fails to do so. Patients who receive no ergot and no douche convalesce in a thoroughly satisfactory manner.

Dr. Edwin Williams contributed a paper on a *Clinical Study of Chorea*, which was read by title. (To be published in the MEMPHIS LANCET).

PROCEEDINGS OF THE WEST TENNESSEE MEDICAL AND SURGICAL ASSOCIATION.

Meeting at Jackson, Tenn., May 25 and 26, 1899.

The meeting was called to order by the President, *Dr. Wm. Krauss*, of Memphis, at the Odd Fellows' Hall, at 10 A.M., May 25. *Dr. Jas. T. Jones*, of Jackson, offered a prayer. The address of welcome was delivered by *Col. R. S. Fletcher*, of Jackson, and was responded to by *Dr. E. C. Ellett*, of Memphis.

The following physicians were elected as members:

Dr. E. K. McNeil, Jackson.
Dr. Jno. H. Harris, Gadsden.
Dr. J. C. Stinson, Center Point.
Dr. Alfred Moore, Memphis.
Dr. B. G. Adamson, Jackson.
Dr. L. G. Bouton, Greenfield.
Dr. C. C. Drake, Jackson.
Dr. I. W. Perkins, Henderson.
Dr. Jno. M. Arnold, Middle Fork.
Dr. E. M. Holder, Memphis.
Dr. F. D. Smythe, Memphis.

Dr. I. A. McSwain, the Secretary, suggested that since there were now two medical journals represented by members of the Association, the contract existing with the *Memphis Medical Monthly* be rescinded. He eulogized the editor of the *Monthly* and his efficient work, but thought a continuance of the contract would be equivalent to discrimination. Dr. T. J. Happel, of Trenton, offered the following, which was unanimously adopted:

“Resolved, That this Society discontinue its contract with the *Memphis Medical Monthly* as the official organ of this body, and that the Secretary be directed to dispose of the papers presented in accordance with the wishes of the members.”

After some committee reports, Dr. Robert W. Tate, of Bolivar, read the first paper—*Ludwig's Angina*. (To be published in the MEMPHIS LANCET).

Dr. M. M. Smith, of Cedar Chapel, said there was almost no information in the textbooks on this trouble. He had a case (bilateral) of suppurating submaxillary glands which burst and continued to discharge until the entire glands were destroyed. He thought this was the best result obtainable when the glands are involved; if the trouble is in the connective tissue of the neck, the proposition is more simple, requiring only free incision and drainage.

Dr. E. C. Ellett, of Memphis, mentioned a case reported by Lederman in the *Medical Record* following suppurative otitis, in which the abscess was opened through the floor of the mouth (a wise procedure in women, to avoid a scar). A recent case of his own, seen on the first day, resolved under belladonna ointment and poulticing, and was probably a milder type than the cases described by the essayist.

Dr. T. J. Happel, of Trenton, dwelt upon the importance of early incision. The field can be explored with a long hypodermic needle, or even the old-fashioned exploring needle. In the case of a baby suffering from septic symptoms with swelling, he explored early and found pus, which was evacuated.

Dr. T. J. Happel read a *Report of Cases in Practice*. (To be published in the MEMPHIS LANCET). One was an amputation of the breast for cancer, with extensive glandular involvement, the other one of external perineal urethrotomy, without a guide, in a case with extensive suppuration about the scrotum and urinary fistulæ, the result of a stricture.

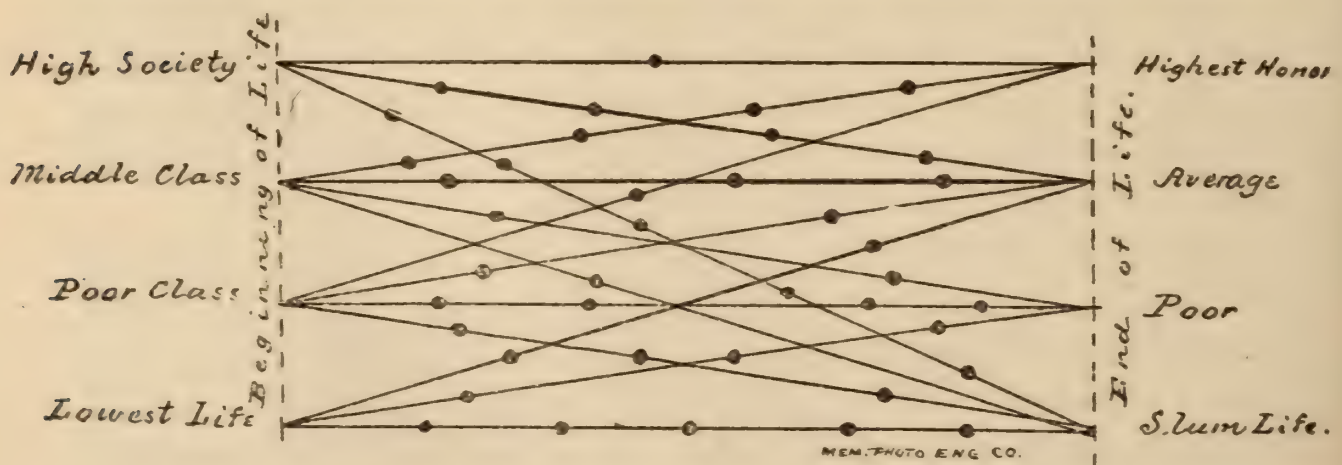
Dr. Jere L. Crook, of Jackson, congratulated the essayist, especially upon the result of the last operation. With a guide the operation is simple. He endorses thorough operation in removal of the breast. In two cases done by Bernay's method all the glands, even though apparently healthy, and the pectoral muscles were entirely removed. There had been no recurrence in twelve months. The operation requires a skilled assistant, and is only done in that stage as a palliative measure.

Dr. I. A. McSwain, of Paris, advocated the removal of the breast for all swellings not due to nursing (abscess). It is safe to suspect malignancy in all cases and we can diagnose positively afterward.

Dr. A. E. Cox, of Milan, also advocated earliest possible removal of the breast for all tumors.

Dr. T. J. Happel wished to call attention to the peculiar indications in his cases, and to the importance of a radical operation even if some of the defect has to fill by granulation. He recalled the case of a female, aged 16, who had a small tumor from a blow which was very painful. He had advised removal of the tumor, but the operation was declined. Ten years later, following childbirth, a cancer developed and a radical operation had to be done. The patient is now living, six or eight years after removal. Much tissue might have been saved in the first instance. He reiterated points in the perineal operation and his reasons for his technique.

Dr. J. D. Hopper, of Andrew Chapel, presented a demonstration of his views of the *Different Phases of Life*. The subjoined diagram is supposed to represent the fate of ten individuals of



each of the four arbitrary scales or social strata. The dots on the lines in the diagram correspond to the number of individuals following that line.

In "high society" the parents lead luxurious lives, they dissipate, live upon unsubstantial food, do not beget the physically strongest children, and leave these to the nursing and care of representatives from the "lowest life," from whom they get their nourishment and early impressions, which are the most lasting. They are not taught to work, and their environments and influences tend to depress the vital and moral forces. In "middle life," the best stock—the workers and thinkers—the offsprings are healthy, are nursed by their own mothers, and receive their first impressions from those having the ambition to elevate them in the social scale. The individual owes four-fifths to environment and one-fifth to heredity. Of twenty-five Presidents of the United States, three came from "poor life" and one from "lowest life." A man may pass from lowest station to the highest, but this is not probable. There are social barriers which are not to be overcome. There is very little difference between the fates of children from the highest and lowest scales. Those from the lowest scale usually remain there. The remedy for depreciation lies in mode of living. We must be moderate in all things, lead temperate, Christian lives, abstain from tobacco, alcohol and narcotic drugs. A nation of narcotic users becomes the prey of those who abstain, e. g., the Chinese are the lowest in scale of civilized nations.

Dr. J. A. Crook, of Jackson, thought the diagram an ingenious scheme, but has not studied it sufficiently to criticise the figures.

Dr. M. M. Smith does not agree that there is no standstill in the phases of life. He knows of individuals who are temperate, economical and hard-working who never improve their condition.

The President thought the course of life of some people would resemble the temperature chart of a case of intermittent fever. There may be conflicting influences not represented by heredity or moral environment.

Dr. T. J. Happel spoke of the effect of heredity. He found that the descendants of the high livers (financially and socially) will, in the third generation, populate lunatic asylums. He knew of physicians who fell from the social scale as a result of acquiring

vicious habits. He related instances of moral degeneration which descended down the line.

Dr. A. E. Cox read a paper on *Chloroforming*. The history of the subject was reviewed and the usual method of preparing the patient and administering the drug mentioned. Quiet is essential during the administration, and after the operation the patient should be put in a warm bed with the head lowered. It is advised to give morphia and atropia hypodermically before the administration of chloroform. Its value as an anesthetic in children, its danger in cases of adenoids and the *habitus lymphaticus*, the necessity of watching the pupil, pulse and respiration, and the modes of death from chloroform, were dwelt upon. It is probable that death may be produced in one of several ways, as is indicated by the different results of various experimenters.

Dr. R. A. Jones, of Jackson, emphasized the importance of the anesthetist and of a careful personal examination of the patient, and advised using the palpebral instead of the corneal reflex to determine when the patient is ready for operation.

Dr. J. T. Barbee, of Jackson, advised giving a very little of the anesthetic at first. He is not in favor of using morphia and atropia or any other drug at any time, unless specially indicated. The anesthetist should if possible know the character of the patient's pulse under normal conditions. Quiet and gentleness conduce to safe and successful anesthesia.

Dr. T. J. Happel counsels against the use of morphia before chloroformization, since the immediate happy results are offset by the remote ill effects. He favors the use of atropia and strychnia; especially does he favor giving the latter for a day or so beforehand. The anesthetist is second only to the operator in importance, and often is of first importance.

Dr. M. M. Smith thinks the quiet secured by morphia is too great an advantage to be dispensed with.

Dr. I. A. McSwain also dislikes the effect of morphia, and concurred in the expressions regarding the anesthetist's importance. He prefers chloroform to ether as an anesthetic.

Dr. A. E. Cox thinks a clear indication for morphia and atropia exists, and emphasized the importance of not beginning to operate until the patient is fully anesthetized, especially if the operation is to be a long one.

Dr. J. C. Stinson, of Center Point, reported a case of *Traumatic Hematoma*. The patient was a girl 16 years old, who said she had had a chill and hemorrhage from the bowel the day before she was seen. The hemorrhages recurred several times, each amounting to a pint. There were symptoms of collapse. A diagnosis of congestive chill with hemorrhage from the bowels was made. Under quinin, strychnin and belladonna she improved, and the hemorrhages ceased. Recurring a week later, a local examination was made, this not having been done before on account of the patient being a young girl. A hematoma of the right labium was found, with an opening into the vagina and a cavity in the labium containing eight ounces of clotted blood. The history was then elicited of a fall by a plank of a gate breaking, the perineum striking on another plank. The blood accumulated in the vagina and was released when sitting on the chamber.

Dr. Jere L. Crook commended the author for reporting a mistake, which in this case seemed very excusable.

Dr. J. A. Crook said it seemed unusual to have found so much blood in the labium and none in the vagina.

Dr. T. J. Happel recalled a case seen some years ago in which there was hemorrhage into the tissues alongside the vagina. He thought and still thinks it was due to traumatism during intercourse, the patient being a young girl with a very large vagina. The collection was incised, evacuated and drained.

Dr. Richmond McKinney, of Memphis, read a paper on *Intubation of the Larynx in Laryngeal Diphtheria and Pseudo-Membranous Croup*. Reviewing the history of the method, priority probably belongs to Bouchut, but to O'Dwyer is due the credit for developing and popularizing the procedure. The indication for intubation is threatened asphyxia in stenosis of the larynx from false membrane. If the tube is coughed up it should be reintroduced, with possibly a little rest between attempts. Difficulty in swallowing, which may occur when the tube is in place, can be avoided by having the patient lie on his back. It is an adjunct to other treatment, by antitoxin, etc. Statistics were quoted to show the value of intubation. It is advised in preference to tracheotomy, because the parents will more readily consent to it, there is no shock, no wound infection, no danger of pneumonia, and recovery is rapid. An illustrative case was reported.

Dr. J. T. Herron, of Jackson, prefers intubation in children, and tracheotomy in adults. Tracheotomy is difficult in children on account of their short, and often fat necks.

The President said that the intubation tube may push the membrane before it, and thus fail to relieve the stenosis. In doing tracheotomy there is great danger of diphtheritic infection of the wound. It is usually advisable to operate without an anesthetic, on account of the patient's condition. Statistics favor tracheotomy, but are very misleading.

Dr. I. A. McSwain would avoid the necessity of doing either intubation or tracheotomy by the early use of antitoxin.

Dr. Richmond McKinney said that the tube could be removed with the extractor, or with a string attached to the tube. Cases of intubation must be carefully watched.

Dr. E. C. Ellett read a paper on *Some Remarks on Mastoid Abscess, with a Report of Illustrative Cases*. (See page 315 for an abstract of this paper, which will appear in full in the MEMPHIS LANCET).

Dr. A. E. Cox complimented the essayist, but had nothing to add to the subject.

Dr. J. T. Herron mentioned a fatal case of brain abscess due to a neglected mastoiditis. When the perforation in the drum is blocked by a polyp, the pus is dammed back, forced into the mastoid cells, and causes a mastoid abscess. General practitioners should encourage their patients to attend to ear troubles, and not live in hopes of "outgrowing them."

Dr. E. B. White, of Lebanon, said that one of his first cases was one of mastoid abscess, for which he operated successfully.

Dr. Jere. L. Crook reported *Two Recent Cases of Osteo-Myelitis with Unusual Features*. The first case was that of a boy, aged 8, who had had, four and a half years ago, what was diagnosed rheumatism of the right knee. Sinuses subsequently formed around the joint, and at the time of operation extended eight inches up the thigh. The lower end of the femur was found carious, and the trephine exposed a large sequestrum in the medullary canal, which was removed, together with much purulent debris. The whole shaft of the bone, being cleaned out, was packed, and the boy recovered with a useful leg. The second case was in an old negro man, affected the foot, and was of traumatic origin. The condi-

tion necessitated amputation above the knee, when the femur was found affected as in the first case, and was similarly treated. Recovery. The symptoms and indications for treatment as given by Goltman were endorsed. (This paper will be published in the *MEMPHIS LANCET*).

Dr. W. F. Rochelle, of Jackson, emphasized the importance of diagnosis, the liability of confusing it with rheumatism and even typhoid fever. He favors operation, and mentioned a case in which all the bone was removed for a few inches, leaving the periosteum. The bone was reformed and function restored.

Dr. J. D. Hopper had a case in which operation was refused. A sequestrum finally came away, and recovery ensued. In another case, seen early, operation was declined, and after a year amputation was necessary.

Dr. W. F. Watson, of Lexington, read a paper on the *Financial Aspect of Medical Practice*. The doctor was advised to supply himself with all necessary implements and books, to dress well, not to loaf, to cultivate the influential members of the families for whom he practices, to push the collection of the customary fees as just debts, and to conduct his business on business principles.

The Presidential Address on the subject of *Medical Legislation* was delivered by *Dr. Wm. Krauss*. The speaker said that when medical practice acts were first introduced the more tardy States got the worst of it. One-third of the licensed practitioners have no diplomas in this State. Likewise, when more restrictions are being thrown around the practice of medicine, it is necessary to keep in the van. It is difficult to get the public and the legislators to appreciate that this form of legislation is not to foster a "doctor's trust," but to protect the public. The public must be taught that there are no therapeutic secrets, and that irregulars who use no drugs can do a great deal of harm, either by manipulation when it is not indicated or by praying over fractures, gangrene, diphtheria, etc., where energetic means must be employed. The various State medical laws, only a few of which are efficient, were reviewed. The action of the recent Legislature, exempting Tennessee graduates, was characterized as a "piece of monumental stupidity." The speaker closed with the consideration of an ideal law, an exhortation to his hearers to arouse the public and to work at the polls for

men who would vote for a sound law which would protect the public.

Dr. Geo. Penn, of Humboldt, presented a paper on *Pulmonary Tuberculosis, with Special Reference to Treatment*. In view of the fact that this disease is responsible for one-seventh of all deaths, we should disseminate knowledge as to its contagiousness, its curability in the early stages, the importance of coöperation of the people to secure legislation to prevent the disease, and the necessity of sanatoria for its treatment. Surgical treatment is only feasible in special hospitals. The writer cannot see in surgery the final solution of the therapy of pulmonary tuberculosis, but looks for it in the use of some serum. He advocates persistent treatment, life in the open air, a high, dry climate, nuclein (egg albumin) with whisky, lemon or water, and milk. Codliver oil is apt to upset the stomach. Drugs are of secondary importance. Strychnia and creosote are the most valuable.

The Rev. Dr. Powell, of Jackson, delivered an entertaining talk on the prevention of tuberculosis. In Mexico the most ignorant peon is more alive to the contagiousness and danger of tuberculosis than the majority of presumably intelligent Americans.

Dr. T. J. Happel thought the doctors as a rule fear to tell their patients the real state of affairs and to point out possible dangers. He had seen many evidences of the contagiousness of the disease, especially among the negroes.

The discussion drifted to the subject of medical legislation, State boards, etc., and was participated in by Drs. Happel, J. A. Crook, Smith, Ellett and Krauss. It was moved and carried that a committee be appointed to formulate a plan for the concerted action of the physicians of the State on the subject of securing such laws as are deemed by the profession necessary for regulating medical practice and maintaining and promoting the public health.

The following officers were elected :

President—Dr. W. M. Mason, of Hazel, Ky.

First Vice-President—Dr. Jere. L. Crook, of Jackson.

Second Vice-President—Dr. A. E. Cox, of Milan.

Secretary and Treasurer—Dr. I. A. McSwain, of Paris.

The next meeting will be held at Milan.

PROGRESS OF MEDICINE.

FINAL REPORT ON SCHLATTER'S CASE OF REMOVAL OF THE STOMACH.—Carl Schlatter (*Medical Record*, March 18, 1899) reports the findings at autopsy on his case of total extirpation of the stomach. Patient, female, aged 56; operated on September 6, 1897; died October 29, 1898, fourteen months after operation, of secondary multiple carcinomatous metastases, having gained in weight and suffered no evidences of malnutrition during the fourteen months. On her return to hospital in September, 1898, she complained of some pain in left hypochondrium after taking solid food. Later there developed a hard nodular tumor in this area, and symptoms of eructations of fluid, pain in abdomen, violent nosebleed, cachexia, increasing feebleness, and death on October 29.

Autopsy showed body emaciated, parietal peritoneum adherent to abdominal contents, cloudy fluid in cavity. Adhesions had drawn liver to left side, and a litre of fluid was interposed between it and the diaphragm. Connected with transverse colon was a nodular mass as large as two fists, consisting of enlarged mesenteric glands. Pericardium and heart normal. Left pleural cavity contained about a litre of opalescent fluid and right cavity about 500 c.c. of bloody fluid. Lungs moderately adherent and pleura studded with grayish white nodules. Around the bronchi some of these grayish white nodules. There was some dilatation of the subdiaphragmatic portion of the esophagus, due mostly to carcinomatous involvement.

There was plainly no attempt in this case at the formation of a new diverticulum for the food, though in an autopsy of Schuchardt's case there had been found such a diverticulum.

Microscopic examination of the mucous membrane at the esophago-enteric junction showed it to be typic of neither mucous membrane.

He concludes that it is possible for patients to be well nourished and live indefinitely without the stomach, and that death in this case was not due to inanition from insufficient nutrition, as patient had gained in weight for an entire year after the operation, but was due to secondary carcinomatous involvement.

THE SIGNS OF INHERITED SYPHILIS.—Robert H. M. Dawbarn (*N. Y. Med. Jour.*, April 8, 1899) gives twenty-seven signs :

1. Look of "little old men," skin wrinkled and sallow, "café au lait" color.

2. Umbilical cord extremely thick, long and slow to separate, probably due to endophlebitis obliterans.

3. Pemphigus syphiliticus. Mortality almost 100 per cent. Vesicular syphilide.

4. The common eruption, erythematous. The macules appear first in lower part of abdomen and genitals about three weeks after birth.

5. Condylomata. Muco-cutaneous openings most commonly around anus.

6. Snuffles. One of commonest signs, due to coryza and later ozena.

7. Hoarseness in crying, due to patches, etc., on larynx.

8. Mucous patches on lips, mouth, etc.

9. General stomatitis and pharyngitis. Peculiar desquamation of tongue.

10. Differential point between congenital and acquired infantile syphilis is the absence of glandular enlargement in the congenital type.

11. Hemorrhages infrequent; diagnostic when present. May be subcutaneous or from ulcerations.

12. "A white pneumonia," due to fatty degeneration of epithelium of air passages.

13. Involvement of the liver, such as interstitial hepatitis, gummata, or amyloid degeneration, causing enlargement, ascites, but not jaundice.

14. Spleen enlargement in one-half the cases.

15. Eye troubles, such as interstitial keratitis, (ground glass cornea, pathognomonic), iritis, choroiditis, retinitis and optic neuritis.

16. Otitis media, with other signs very suspicious.

17. Rapidly occurring alopecia.

18. Painless orchitis; testicle may be handled with impunity.

19. Neuroses. Chorea, epilepsy, hemiplegia.

20. Osseous signs. Osteochondritis involving shaft and epiphyseal junctions, and occurring early.

21. Syphilitic periostitis occurs later than the osteochondritis. This causes the "nodes of Parrot."

22. Dactylitis syphilitica. Differing from tuberculous variety in that it mainly affects the first phalanges and is symmetrical.

23. Finger nails. Peculiar forms of onychia; one characteristic form, "the claw."

24. Temporary teeth. Cut very early, bad color, and decay early.

25. Hutchinson's teeth. Only found in permanent teeth.

26. Irregularities, hypertrophies and asymmetries of bony development. Nose may be shortened, bridge sunken. Tibia may be greatly thickened, and may have the characteristic "saber shape."

27. Chronic fissures about the lips of children no longer in infancy. Linear cicatrices. Small scars on upper part of both legs, symmetrical, imply that child once had the disease and was cured.

A METHOD OF PREPARING CATGUT.—Hirst (*Am. Jour. Obst., &c.*, March, 1899) describes a method of preparing catgut which has given him a result that is perfectly satisfactory. The catgut is prepared by soaking in benzin for twelve hours to eliminate the fat. It is then dried on a piece of blotting paper, and then soaked in sterile water in order to make it receptive and absorptive, after which it is immersed in a five per cent. solution of formalin over night, about fourteen hours. It is then washed in sterile water to remove the excess of formalin, and stretched on a form such as Edebohls uses for chromicized gut, and is allowed to dry for four or five days in a well-heated room until absolutely dry. It is then wound on a conveniently large wooden spool so that the coils will not cross each other, and is finally put in a ten per cent. solution of glycerin in absolute alcohol. It is then sterilized for forty-five minutes to an hour in a metal cylinder with a tight screw cap, which is put in an autoclave sterilizer and kept at 240° F. In this way the catgut is made absolutely sterile throughout. The formalin soaks into its interior and not only makes it aseptic but antiseptic. Microorganisms cannot be cultivated on catgut treated with formalin. Hirst has found that this catgut will last seventeen days in the vagina, and that it lasts a longer time when buried in

healthy tissue. In the fascia of the abdominal wall it endures about three weeks before it gives way at all, but it is entirely gone in between three and four weeks. He has found it as strong as catgut can be expected to be. The addition of glycerin in its preparation makes it as soft and pliable as silk.

THE DIFFERENTIAL DIAGNOSIS OF SYPHILITIC ERUPTIONS AND SIGNS IN THE SKIN OF FORMER SYPHILIS.—George Henry Fox (*N. Y. Med. Journal*, April 8, 1899) says :

All physicians are called on to treat syphilis.

In syphilis of internal organs the diagnosis is obscure, but in cutaneous syphilis the diagnosis is written on the skin. Diagnosis rests on clinical experience.

The characteristics of syphilodermata are color, absence of itching and configuration. Color often typical, not absolutely. Absence of itching some few notable exceptions, viz., pustular eruptions, numerous lesions and superficial crusts, cause some pruritus. Peculiar configuration of syphilitic eruptions most characteristic sign.

Early eruptions disseminated and symmetrical.

Certain relapsing eruptions have a tendency to a corymbiform arrangement, but this is usually on both sides of body.

Later eruptions, after first year, symmetry lost.

Latest eruptions tend to group, to be arranged in circles, to peripheral extension of patches, to gummatous ulceration.

Cutaneous indications of previous syphilis may be pigmentary or cicatricial. Discolorations not of much value. Cicatrices, where in groups and in upper portion of leg, are almost characteristic, but their size or shape or color indicate nothing.

THE DIAGNOSIS OF TRICHINOSIS BY MEANS OF THE GREAT INCREASE OF THE EOSINOPHILES IN THE BLOOD—REPORT OF THE FOURTH CASE.—Thos. R. Brown (*Med. News*, Jan. 7, 1899) reports his fourth case of trichinosis in which there was great eosinophilia. The first case was noticed by an editorial in the *Lancet*, vol. 1, no. 4. In this case the diagnosis was made from this alone, and then confirmed by microscopic examination of a piece of muscle removed from the gastrocnemius under cocain anesthesia, and also by the subsequently obtained history of a diet of raw pork a month previously. The case appeared clinically to be one of febricula, possibly typhoid.

The unstained blood was found to contain a large number of eosinophiles. The leukocyte count showed 18,100 per cubic millimeter, 48 per cent. of them being eosinophiles. The urine was normal, and the blood did not give the Widal reaction. As in the other cases reported, the nucleus was polymorphous—like that of the neutrophiles.

The author believes the eosinophiles are derived from the polymorphonuclear neutrophiles, because they constitute the largest per cent. of normal cells, and he further believes that this transformation takes place in the affected muscles. The inverse relationship between the two varieties seems to support this view. The subsequent diminution of eosinophiles is very gradual indeed. In the case above cited there was some slight increase three months after the cessation of all symptoms. The clinical differentiation between trichinosis and other diseases accompanied by eosinophilia, is very easy, and the eosinophilia in these is never of such a high grade and, barring severe and epidemic cases of trichinosis, the diagnosis is not possible without a blood examination. A blood examination should be made in all cases of fever of doubtful origin and cases of indefinite intestinal and muscular symptoms.

SUDDEN DEATH FOLLOWING REMOVAL OF THE TONSILS.—J. A. Stucky (*Amer. Practitioner and News*, March 1, 1899) reports a case of this rare and unfortunate accident. The patient was a boy aged 15, septic, temperature 101°, with a chronic left peritonsillar abscess, the tonsil enormously enlarged, soft, spongy, and pus oozing from the follicles. The vault of the pharynx was filled with adenoids, covered with an offensive discharge. Under chloroform the tonsil and adenoids were thoroughly removed, and after the usual amount of bleeding the patient was put to bed in good condition. About two hours later a secondary hemorrhage started, which was soon controlled by iced peroxid of hydrogen and ergotin hypodermically. The bleeding was a general oozing from the cut surfaces. Three pints of hot normal salt solution were transfused, and stimulants given. The patient died nine hours after the operation.

Dr. Stucky thinks there was a hemorrhage diathesis, probably due to sepsis, and that death was coincident with the operation, which was the exciting but not immediate cause.

THE TONGUE IN THE MOST IMPORTANT DISEASES.—Dr. M. Cofinas (*Deutsche Medizinal Zeitung*, Feb. 20) is credited with the following statements:

1. Typhoid. At the beginning soft, moist, somewhat sticky, covered with a thin coating. The latter has generally the form of a V, with the apex directed backward. If the tongue retains these characters during the course of the disease, the progress is very favorable. In addition we find at the beginning a redness of the point and edges, and red scattered spots over the entire surface. In the second stage the redness increases and dryness is added; finally the tongue appears brown or black, and is small and fissured. Toward the end of the disease the crusts, which consist of dried food and blood, fall off, the tongue is red and dry, the epithelium is lost. Finally, it assumes its moist, whitish appearance.

2. Measles. In mild cases, redness at the point and edges and white coating at the base; dryness only in severe cases. In the prodromal stage we find, on the buccal mucous membrane and also on the tongue, small, bluish-white efflorescences, with a congested circumference.

3. Scarlatina. Intensely reddened on account of total desquamation; papillæ very prominent (strawberry tongue).

4. Pertussis. In many cases ulceration at the frenulum.

5. Pneumonia. Similar to typhoid fever.

6. Cholera. Only of interest in the algid stage—pale, livid, cold (corresponding to the temperature of the extremities, lower than that of the axilla).

7. Phthisis. Even, with a temperature of normal character, moist. Lesègue says: "Whosoever has a good moist tongue, eats with an appetite, and has some pyrexia at night, is a phthisical subject." Of course this applies only to the mild cases.

8. Diabetes Mellitus. Dry, brown-red, fissured, clinging to the hard palate. Papillæ hypertrophied. Hairy tongue (due to lepto-thrix).

9. Morbus Addisonii. Black spots on the tongue occasionally occur.—*Medical Record*.

OBSTETRICAL CASES PRESENTING RARE AND INTERESTING FEATURES.—Alfred Moore (*Obstetrics*, April, 1899) reports the following cases:

Case I. A small woman, had had two previous instrumental labors, the first child being born dead. The pelvic diameters were sufficient to permit delivery. Dyspnea and edema were marked, due to a multiple pregnancy. Labor began on January 9, and pains continued till the 11th, when severe accidental hemorrhage occurred, with much shock. The membranes were unruptured, the presenting part did not recede, and the placenta could not be felt through the os. A bulging of the uterus could be felt. Under anesthesia two children were delivered with forceps, both presenting L. O. A., and the placenta was delivered by Credé's method; it was double and contained a quantity of dark clots. The hemorrhage continuing, the fundus was grasped with the left hand, the right introduced into the cavity, and a large quantity of clots cleaned out, allowing the uterus to contract. Ergot, stimulants and hot enemata were given. Mother and twins all did well. The children weighed seven and eight pounds. The bleeding was from premature separation of a normally-situated placenta.

Case II. A woman was delivered at term of her ninth child, surrounded by the membranes or "caul."

Case III. A precipitate labor, after one pain. The child fell to the floor, rupturing the cord ten inches from the umbilicus. The cord was not tied for an hour, bleeding was slight, and the child survived.

Case IV. Precipitate labor. The woman fell on the floor to prevent the child's falling.

Case V. A seventy-pound, snuff-dipping, morphine-eating primipara, had pregnancy complicated with persistent diarrhea; labor at thirty-sixth week; breech presenting L. S. A.; forceps delivery. The child weighed three and a half pounds, but on artificial food and a wet nurse has increased to eight, and the mother to 103 on cutting morphine in half.

Case VI. A primipara, had a severe hemorrhage in the eighth month, checked by elevation of the hips; labor at term. The cord encircled the fetal neck three times, but was easily removed. The placenta was incomplete, and was inserted in the lower uterine segment.

THE PIANO AND NEUROSES.—Waetzold (*Journal d'Hygiene*, Jan. 5, 1899) thinks that the chlorosis and neuroses, from which so many young girls suffer, may be largely attributed to the use of the piano. It is necessary to abandon the deadly habit of compelling young girls to hammer on the keyboard before they are fifteen or sixteen years of age. Even at this age the exercise should be permitted only to those who are really talented and are possessed of a robust temperament. Waetzold shows that out of one thousand young girls studying the piano before the age of twelve years, six hundred were afflicted with nervous troubles later on, while the number having affections of this kind was only two hundred for those who commenced the study of the piano at a later age, and

only one hundred were affected among those who had never touched this instrument. The study of the violin produces even more disastrous results than those attributed to the piano.—*Med. Record*.

MASTOID OPERATIONS.—W. F. Cole (*The Laryngoscope*, April, 1899) calls attention to a new method of operating for mastoid abscess, which he first described a year ago. The method consists in going through the soft tissues with a trephine attached to a dental engine, removing a "button" down to the bone. The hemorrhage being controlled with a plug of cotton saturated with chromic acid, the muscular (?) tissue is cleaned from the bone with the electric cautery and the bone opened with a drill. The opening is enlarged with suitable burrs, and the antrum cleaned by curetting. Only local anesthesia is necessary, and the operation can be done with few assistants in a short time, and with a minimum of disturbance to the ear itself. In five cases the writer has found it to be satisfactory.

BOOK REVIEWS.

Any medical book can be obtained through the Lancet at publisher's prices, postage free. Terms cash. The usual discounts are allowed.

Saunders's Medical Hand Atlases. Atlas of the External Diseases of the Eye, including a brief treatise on the Pathology and Treatment. By Prof. O. Haab, M.D., of Zurich. Authorized translation from the German. Edited by G. E. DeSchweinitz, A.M., M.D., Professor of Ophthalmology in the Jefferson Medical College, Philadelphia; Consulting Ophthalmologist to the Philadelphia Polyclinic; etc. With 76 colored plates and 6 engravings. Philadelphia: W. B. Saunders, 1899. Price, \$3.

We have had the pleasure of reviewing previous volumes of this series, and this one in beauty and accuracy is quite the peer of its predecessors. No field lends itself so readily to illustration in color as external diseases of the eye, and in no class of disease does the ordinary form of illustration convey so inadequately what it intends to. The text of this particular book would warrant a good reception if divorced from the illustrations, such additions as are necessary in the light of recent advances being made by the American editor. We are impressed with the stress laid on the importance of accurate vision to the ophthalmologist himself, a point seldom dwelt on. There is almost nothing to criticise in the beautiful illustrations, yet special notice should be made of plate 17, representing phlyctenular ophthalmia in a most life-like manner, whereas the usual illustrations of this condition are very unsatisfactory. We believe this book will give the general practitioner a better idea of what he ought to know and wants to know about disease of the eye than any yet published. Its low price places it within the reach of all. To make this series more attractive Mr. Saunders offers to send them, postpaid, on request. If the prospective purchaser concludes, after examination, not to take the book, he is at liberty to return it.

Annual and Analytical Cyclopedia of Practical Medicine. By Charles E. de M. Sajous, M.D., and one hundred associate editors, assisted by corresponding editors, collaborators, and correspondents. Illustrated with chromo-lithographs, engravings and maps. Volume III. Dislocation to Infantile Myxedema. Philadelphia, New York, Chicago: The F. A. Davis Co., Publishers, 1899.

The plan of this work was set forth in a review of volumes I and II, and does not need further elucidation or comment. In the present volume especial attention is called to the articles on "Infantile Myxedema," by Osler and Norton; "Exophthalmic Goiter," by Putnam; "Goiter," by Adami; "Dysentery," by Flexner; "Endometritis," by Byford; "Gout," by Levison; "Dislocations and Fractures," by Stimson and Keyes; "Hip Joint Disease," by Sayre; "Eczema," by Stelwagon; and "Hysteria and Hypnotism," by Eskridge. These will give an idea of the character of the contributions and contributors alike. We can hardly commend this work too highly. In our opinion it should be in the hands of every practitioner of medicine. It is not a yearbook, containing the progress of one year, but an encyclopedia, bringing all medical subjects down to date. There is no other book to compare with this, it being a library in itself. We repeat that we commend it most highly, and think it should be in the library of every physician who reads, writes, or thinks.

An Epitome of the History of Medicine. By Roswell Park, A.M., M.D., Professor of Surgery in the Medical Department of the University of Buffalo, etc. Based upon a course of lectures delivered in the University of Buffalo. Second edition, illustrated with portraits and other engravings. $6\frac{1}{2} \times 9\frac{1}{2}$ inches. Pages xiv-370. Extra cloth, \$2 net. The F. A. Davis Co., Publishers, 1914-16 Cherry street, Philadelphia.

This is a very interesting book for both students and practitioners. It is a subject hitherto much neglected, and in proof of the necessity of a good book of this nature, it need only be said that the first edition has been entirely exhausted and the second edition printed within a year. We agree with the author, however, who hopes that a larger and more comprehensive work may be the outcome of the interest in this history of medicine.

The Journal of Tuberculosis. A quarterly magazine devoted to the Prevention and Cure of Tuberculosis, edited by Karl Von Ruck, B.S., M.D., is the latest addition to our exchange list.

Treating exclusively of a subject of such absorbing interest to all medical men, it cannot fail to be well received everywhere. The tenor of the general articles is far in advance of general practice, and, although much of the theory advanced may be wrong, that very fact will be most potent in stimulating others to find the right track. The point upon which most stress is laid by the authorities is the necessity of an early diagnosis, and they are unanimous that the test with tuberculin or the aqueous ext. of tubercle bacilli is the only feasible method in the pretubercle stage. The supplemental essays by Dr. Von Ruck on the Cause and Prevention of Tuberculosis are scholarly resumés of our present knowledge. He makes a very excellent point by his advice to tubercular patients to destroy their sputum to prevent their own reinfection, for such an argument will indeed be much more powerful than a plea for other people. We look forward with much eagerness to the other essays of this series.

A DEATH is reported from Germany due to suppurative meningitis, the infection coming from an ordinary sty on the eyelid.

NEWS AND NOTES.

DR. W. W. HAMILTON, who has been associated with Dr. Wm. Krauss, has returned to Brooksville, Miss.

DR. W. T. BRAUN, formerly house surgeon in St. Joseph's Hospital, has gone to New York for post-graduate work.

DR. E. E. HAYNES, formerly of the LANCET staff, has recently been elected Grand Vice-Chancellor of the Knights of Pythias.

DR. W. T. BLACK, having completed his term of service as interne at the City Hospital, has opened an office in the Johnson Building.

DR. M. GOLTMAN, of the LANCET, left for the East on May 28. He will spend several weeks in the hospitals of New York, Philadelphia and Montreal.

THE New York State Board of Medical Examiners announce the following results of the April examinations: Total number of candidates, 68; passed, 51 (75 per cent.); failed, 17 (25 per cent).

THE *Jeffersonian*, published by the students of Jefferson Medical College of Philadelphia, made its appearance in April. We are asked to announce that its editors will be glad to hear from all Jefferson alumni.

A "sign of the times," which illustrates the appreciation of the value of sanitation, is seen in the advertisement of a local furniture van concern. They announce that their vans are fumigated and disinfected daily.

GOVERNOR THOMAS, of Colorado, has vetoed a fairly satisfactory medical law recently passed by the Colorado Legislature. His reasons are about on a par with those usually advanced to excuse such instances of governmental imbecility.

IT is said that Nansen, the Arctic explorer, and his party were entirely free from "colds" while in the arctic regions, but immediately contracted them on their return to Norway, whence it is suggested that "cold" is probably a specific, infectious disease.

DR. G. C. SAVAGE has been elected Secretary of the Medical Department of Vanderbilt University, in which school he is also Professor of Diseases of the Eye and Ear. The University has just closed a most successful year, and is well in the front rank of Southern schools.

THE following more or less good advice for doctors (and others) is taken from the *Medical Record*: "Drink less, breathe more; eat less, chew more; ride less, walk more; clothe less, bathe more; worry less, work more; waste less, give more; write less, read more; preach less, practice more."

ON May 10 Dr. L. L. Meyer and Miss Eva Goldsmith, both of this city, were married at the Gayoso Hotel. Dr. Meyer is a nephew of Dr. M. B. Herman, of the LANCET, a graduate of Bellevue, and Pathologist to the City Hospital. The LANCET wishes Dr. and Mrs. Meyer long life and happiness.

THE following officers have been elected for the Association of American Physicians for 1900: President, Dr. E. G. Janeway; Vice-President, Dr. Wm. H. Welch; Recorder, Dr. I. Minis Hays; Secretary, Dr. Henry Hun; Treasurer, Dr. J. P. Crozier Griffith; Councillor, Dr. Wm. T. Councilman.

THE work of the Board of Health in favor of a pure milk supply seems to have been badly needed. Seven dairymen were tried in the police court on May 19 for dispensing dirty, adulterated and otherwise unwholesome milk. All were fined with the exception of one woman, who was saved by her sex and age.

A "healer" by the name of De Carlo, living near New Orleans, was called to see an Italian woman who was ill. He diagnosed the case as a manifestation of being "possessed of a devil." He then cut the woman's throat with pruning shears to allow the devil an avenue of exit, and proceeded to give the woman a violent beating to drive the devil out. At last accounts the woman was dying and the "healer" was in jail.

THE *Atlanta Medical and Surgical Journal* and the *Southern Medical Record* of Atlanta have consolidated to form the *Atlanta Journal-Record of Medicine*. The first number of the new periodical appeared April 1, and contained seventy pages of high-class reading matter. Drs. Wolff and Roy are the editors, and to them and to the new journal we extend our best wishes. We are compelled to say, however, that they are not as careful in the character of their advertising as they are in their reading matter. Ayer's Cherry Pectoral and Micajah's Wafers have no right to be advertised in a decent medical journal.

THE following changes have been made in the faculty of the Memphis Hospital Medical College. The term of all the profes-

sors expired this year, and Drs. R. B. Maury, Professor of Gynecology, and H. L. Williford, Professor of Materia Medica and Therapeutics, were not candidates for reelection. Dr. T. J. Crofford was elected Professor of Gynecology, and Dr. E. P. Sale Professor of Materia Medica and Therapeutics. The chair of Physiology being made vacant by Dr. Crofford's transfer, Dr. J. L. Minor was elected Professor of Physiology. The other members of the faculty were reelected for three years.

IN the last number of the LANCET we did our friends of Vanderbilt University an injustice in assuming that they made no effort to oppose the amendments made by the State Legislature to the medical practice law. We are informed that at least two of the faculty, Drs. Douglas and Kirkman, did all in their power, and personally appealed to the Governor to veto the bill, but to no avail. All the other schools in the State, however, stood idly by and raised no protest and offered no opposition. Indeed, some of them, at least, connived at the action, lest by opposing it they should endanger the passage of a bill turning over to them unclaimed bodies for dissection.

FOLLOWING is the result of the examination of applicants for license before the Mississippi State Board of Health in May, 1899:

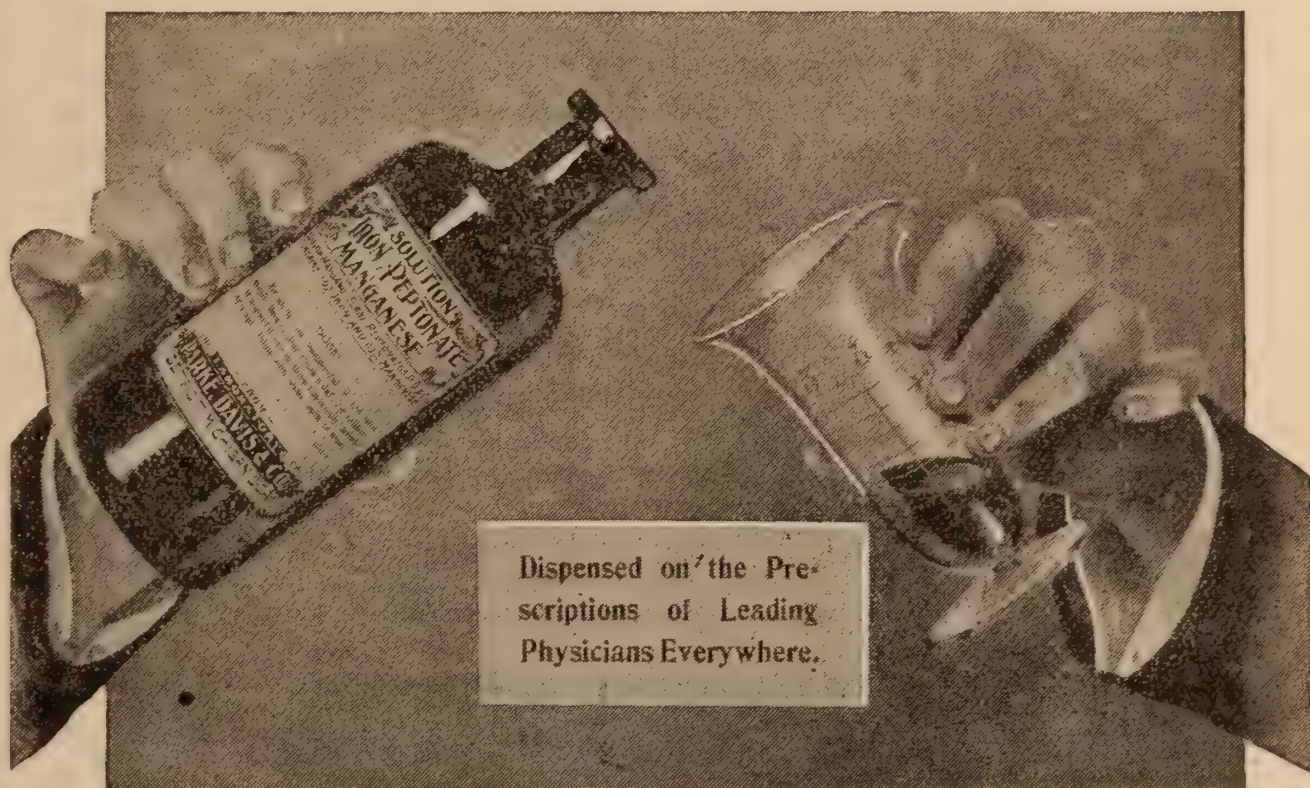
Name of College.	Number Applied.	Number Passed.	Number Failed.
Memphis Medical College.	46	25	21
Tulane Medical College.....	25	19	6
University of Nashville.....	12	7	5
Nashville Medical College	1	1	0
National University.....	1	1	0
Meharry Medical College.....	2	1	1
Barnes Medical College.....	1	1	0
Kentucky School of Medicine.....	6	1	5
University South.	5	1	4
College of Physicians and Surgeons	2	1	1
Jefferson Medical College.....	1	1	0
Hospital College of Medicine.....	2	1	1
University of Tennessee	5	2	3
Alabama Medical College.....	2	1	1
Louisville Medical College.....	5	2	3
University of Louisville	3	3	0
Vanderbilt	6	6	0
Birmingham Medical College.....	1	1	0
Indianapolis Medical College	1	0	1
University of Illinois.....	1	1	0
Howard Medical College.....	1	0	1
Missouri Medical College.....	1	1	0
New Orleans Medical College.....	1	0	1
Rush Medical College.....	1	1	0
Pulte Medical College.....	1	0	1
Montezuma Medical College	1	0	1
Total.....	134	78	56

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CLINICAL NOTES.

FAMILIAR CLINICAL PICTURE.—One of the most common class of cases is that in which there are no well-defined characteristic symptoms of organic disease, but in which there are disturbances of practically all the functions of the body. This condition is variously termed general debility, malnutrition, general atony, etc. The symptom-group is an exceedingly complex and varied one, but the most striking disturbances are those connected with the processes of metabolism; the patient is unable to replace by food the active waste occasioned by the physiologic functions. In consequence of this nutrition suffers, vital force becomes diminished, and there is functional disturbance of practically all the organs of the body. Every physician has many times realized the absolute uselessness in these cases of the ordinarily employed tonics, iron, arsenic and strychnin. It is soon apparent that the remedies are either not absorbed, or if they do enter the system they fail absolutely to reestablish the proper ratio of metabolic waste and repair. The stomach is the organ of prime importance, and its normal functional activity must be reestablished by remedies which have a direct tonic, alterative and stimulant influence upon its enfeebled, inactive mucous membrane. Stomachics—gentian, taraxacum, phosphoric acid, etc.—are the agents of most service. When, how-

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THE MEMPHIS LANCET.

VOLUME III.

JULY, 1899.

No. 1

ORIGINAL ARTICLES.

THE GALVANO-CAUSTIC RADICAL TREATMENT OF PROSTATIC HYPERTROPHY.*

BY F. KREISSL, M.D.

CHICAGO.

Professor of Genito-Urinary Surgery, Chicago Clinical School.

The history of galvano-caustic incision of the prostate is not of so very recent a date as one might believe, judging by the comparatively short time in which it became generally known and done. Bottini described it in Langenbeck's Archive in 1897, but with the exception of Lenander and Czerny very few surgeons became interested in it. His method failed to command the attention of the medical profession for various reasons, such as the inadequate construction of the first instruments, the insufficient electrical supply previous to the introduction of the storage cells into electrotherapeutics, the disinclination on the part of surgeons to work in the bladder without the guidance of the eye, and the more imagined than actually existing danger of hemorrhage following the incision. But the greatest obstacle to the adoption of Bottini's ingenious idea was, and to a certain extent still is, Guyon's theory of the etiology of prostatic hypertrophy, attributing all the symptoms in these cases to congestion and arterio-sclerosis of the urinary tract, and not to the obstructing barrier at the vesical neck

* Read before Illinois State Medical Society, Cairo, May 18, 1899.

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and in the prostatic urethra. It is to be regretted that this theory has caused part of the medical profession to look upon prostatic hypertrophy with indifference or helpless resignation, while others employed the most heroic and yet oftentimes unsatisfactory measures, as, for instance, castration and drainage of the bladder by perforating the gland through the perineum or the rectum. But Guyon's theory lacks the support of practical experience, and the cases in which the bladder, even after years of complete retention, regained normal functions when the obstructing portion of the prostate had been removed, should have pointed to the barrier as one of the probable primary causes, and should have invited investigation and surgical interference in this direction.

The cystoscope has also contributed to throw light upon the situation, and has demonstrated that prostatic hypertrophy is not a disease peculiar to men in that age of which Sir Henry Brody says: "The prostate grows when the hair turns gray and starts coming out," and which, according to Sir Henry Thompson's age limit, is past the fifty-sixth year of life. Admitting that naturally we very often find hypertrophy associated with arterio-sclerosis in advanced age, I have frequently met with hypertrophy and retention in the forties and early fifties, where the most exhaustive examination did not allow of another diagnosis, and the cystoscope failed to disclose arterio-sclerosis. On the other hand, I have seen through the cystoscope extensive arterio-sclerosis of the bladder wall and prostates of old men afflicted with hematuria, cases in which considerable tenesmus existed, and the calls to urinate came as often as in prostatic obstruction, and yet no residual urine was found in the viscus, a blood clot in the vesical neck having produced all the disturbance. Although it cannot be denied that structural changes of the bladder wall are peculiar to and increase with the advancing age, they certainly become accentuated and aggravated by mechanical obstruction at the vesical neck, and more so by a chronic inflammation. We therefore are not justified in regarding arterio-sclerosis and congestion as the exclusive causes of all the clinical symptoms of "prostatism," and of the anatomical changes in the prostate, bladder and kidney. Bottini has to be given credit for having first conceived the correct conclusions regarding prostatic obstruction, and for devising the method of galvano-caustic division of the gland by way of the

urethra, securing the adjacent parts from incallescence by the employment of a refrigerator.

The apparatus itself, in its present modification, devised by Freudenberg in Berlin, does not allow of any criticism, and in the hands of a competent surgeon renders the operation absolutely harmless. I give the description in his own words:

“The modifications in point are relative to shape, handiness and electro-technical construction, affording at the same time the possibility of sterilization.

“The modified instrument is provided with a stout, cylindrical, grooved handle, strong and steady in the hand, quite resembling the well-known handle of a lithotrite.

“The cooling apparatus is inserted on this side of the handle, instead of at its further extremity, thereby obviating incallescence of the handle, and securing the rubber hose of the cooling apparatus from being compressed by the ulnar aspect of the hand.

“In lieu of the platinum blade, platiniridium is used, this alloy being harder, and so less apt to bend, and by reason of its electrical resistance permitting of the employment of the weaker current for rendering the blade incandescent.

“Another addition consists in the conduction of the current ascending to the knife within the guide through a single wire only, equaling in volume the two wires used in the original instrument; the descending current passing through the hull proper, and, by reason of its close contact with the canula, through the entire length of the external instrument. Moreover, greater steadiness of the blade, riveted as it is to the inflexible hull, has been insured. The connection of the instrument with the conducting wires has been achieved by a process corresponding with the axis of the instrument and leaving both poles in a concentric arrangement. A slight jerk will move up the corresponding cable attachment to which the cables are fastened; these are united to one conducting wire, and owing to the improvements of electrical construction are much thinner than formerly.

“Interpolation and interruption of the current are affected by a minute screw, superseding the special interrupter of the original apparatus.

“The last and, as I view it, most important alteration, is the employment of a water-proof and heat-proof putty, which, by tight-

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ening and isolating the apparatus, allows of its being treated *in toto* like any other surgical instrument, not only as to antiseptic solutions, but as to sterilization in boiling water, a process we could not formerly have applied without seriously damaging the instrument.

“The new departure is sure to meet with appreciation, especially when one is promiscuously dealing with septic and aseptic bladders.

“In conclusion, I beg to call attention to an accumulator for Bottini’s operation, which, however, may be employed in any other galvano-cautery. It is fitted up with an amperemeter.”

(The idea of adding an amperemeter was suggested to Freudenberg by the fact that in practicing the Bottini method the degree of incalcescence of the blade, after being introduced into the bladder, was beyond the control of the eye.)

“The amperemeter allows one at any time to read the strength of the current permeating the instrument, thereby getting an exact indication of the temperature of the blade.”

A minute description of the modified incisor is given in the *Centralblatt für Chirurgie*, no. 29, 1897.

The operation is performed without chloroform, cocain only being applied as a local anesthetic. The bladder is emptied by the catheter before introducing the incisor, which itself should be tested previously in regard to the temperature necessary to produce a slight degree of white heat in the blade. This amount is registered on the amperemeter and can be kept up while the blade is beyond the control of the eye. After having introduced the instrument very much like an ordinary steel sound so far that the beak is well in the viscus of the bladder, one turns it to the lobe which it is wished to incise, and at the same time brings the cooling apparatus into action. This done, it is necessary to pull the instrument downward until the point of the beak is well hooked to the upper margin of the gland, and close the current. From ten to fifteen seconds are allowed to pass, which time is necessary to heat the blade up to the temperature desired, and then the incision is made by slowly turning the screw to the right. This, as one will see on the downward motion of the outer piston, brings the blade out of the protecting groove and into the gland. The graduated scale on the piston allows an exact estimate of the length of the incision.

Having obtained this, one must reverse the way of the screw until satisfied that the blade is back again in the groove, then interrupt the current and remove the instrument. If more than one incision is desired, the instrument may be turned toward the lobe it is wished to incise, and proceed in exactly the same way devised for the first incision. The operation takes from two to five minutes, after which there is very little, if any, complaint on the part of the patient, a slight burning sensation during micturition, and slightly bloody urine for the first twenty-four or forty-eight hours; this is about all which is experienced. The patient is allowed to get up in forty-eight hours, provided no contraindicating complications exist.

I do not consider it of paramount importance to fill the bladder with a small amount of fluid before the operation, as advised by Freudenberg and Viertel, or to distend the bladder with air, as done by Lewis. The fluid in the bladder only makes the use of much more powerful and voluminous batteries necessary. The danger of perforating the empty bladder by hooking a transverse vesical fold with the point of the instrument, as happened to Freudenberg, seems to me very remote, and might perhaps have been caused by working too high up in the viscus. I cannot see any objection to inflating the viscus with air, if one feels safer to operate this way, because the air does not interfere with the platinum burner, and, it is claimed, renders the operation absolutely painless.

From the description one might conclude that the operation is the most uncomplicated and simple procedure one can think of, and it is so under certain conditions. First of all, a correct diagnosis is required, based upon a thorough bimanual, and, wherever possible, cystoscopic examination. It is not sufficient to establish the fact of an existing enlargement of the gland, but it is paramount to determine the character, location and configuration of the obstructing objects. The hypertrophied prostate is voluminous, but not every large prostate is hypertrophied. Hypertrophy, which is a disease, is quite different from prostatomegaly, which is only a symptom accompanying prostatic edema, congestion in old people, chronic prostatitis and tumors of the gland. It is further necessary to determine if the enlargement is a general and uniform one, or if but parts of the gland are involved, and which parts, and if the

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projecting nodules look into the viscus, or have invaded the prostatic urethra.

Strictures, especially in the membranous urethra, are often found complicating hypertrophy; diverticula, concretions and tumors in the viscus, and chronic inflammatory conditions outside of but close to the bladder wall will influence our action and the prognosis. Paresis and paralysis of the bladder of spinal origin should be excluded in order to avoid disappointments with and reflections upon the method. The amount of retention urine is, in my experience on fifteen cases, and from what I read in the literature on the subject, without consequence in the final result of the operation. But of great value is the proof of elongation of the posterior urethra, without which hypertrophy of the prostate is hardly imaginable. This will prevent us, for instance, from diagnosing as it actually occurred prostatic enlargement in cases in which concentric hypertrophy of the bladder wall had rendered it impossible to feel the line of demarkation of the gland. When I said the operation, as a rule, is very simple and uncomplicated, I meant to say in the hands of the surgeon who is familiar with the peculiar work in the urethra and bladder. I therefore do not agree with Alexander Thomson's objection that working in the dark without the reliable guidance of the eye is too dangerous to favor Bottini's operation, because we possess this guidance in the distinct sensation of resistance communicated to our hand in the very moment when the cavity of the beak of the incisor touches the prostate.

If these objections would be accepted, how would it stand about curetting of the uterus, vaginal hysterectomy, myomectomy, and litholapaxy? And yet we all know that the master hand of Sir Henry Thompson has crushed many concretions, even in the empty bladder, without a lesion to the latter. We all know that one or the other surgeon unfortunately perforated the uterus during a curettement; that a ureter was ligated in a vaginal operation; that a bladder fold was picked up by and crushed between the bars of a lithotrite, but these accidents have not induced us to give up these operations. The failures or incomplete results after the operation have to be attributed to various reasons. I would divide them into those due to the operator or to his apparatus, and those for which he cannot be held responsible. Among the first I enumer-

ate insufficient lengths and numbers of the incisions, insufficient heat in the blade of the incisor, and the desultory incising of the vesical neck, notwithstanding an insufficient or incorrect diagnosis. To the second I would count total loss of contractile elements in the bladder wall; too far advanced cases in which the projections are too high and too thick to allow an effective cauterization, and all the complications which I have pointed out before. It is to be regretted that we do not possess the means of even approximately ascertaining the condition of the contractile bladder elements before the operation; but the latter, if not successful in such a case as far as a spontaneous micturition is concerned, will at least remove the obstruction and facilitate catheterization, as I have seen in a case I operated on four months ago. The cystoscope will be found of great value in disclosing some of the causes of partial or total failure. I refer to the case of a patient of mine, 76 years old, on whom I performed the operation three months ago. He was so sensitive and restless that cystoscopy was inexpedient, and relying on the result of bimanual palpation, I incised, under steady resistance and restlessness of the patient, the median and left lobe only. As the symptoms of retention remained almost unchanged, I put him under Schleich's general anesthesia, used the cystoscope, and found the right lobe projecting and the median lobe not deeply enough incised, while the incision in the left lobe appeared perfect. I incised the right and the median lobe, which was followed by complete cure.

In another case of complete retention, seen six months after the operation, in which all the morbid symptoms, with the exception of a slight catarrh and 40 cubic centimeters of residual urine, had disappeared, I satisfied myself that the incision had been sufficient, but found that a diverticle, discovered by the cystoscope before the operation, furnished the symptoms of residual urine.

Among the post-operative complications are reported hemorrhage, retention, urethral fever, and, what I have repeatedly seen, but to my knowledge has not been reported by any observer, epididymitis. I believe that the hemorrhages are due to the aimless incision of the anterior part of the prostate, which contains the paraprostatic venous plexus, and which, as we ought to know, never participates in the obstruction. Another source of profuse hemorrhages may be given by incisions carried too far down into the

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prostatic urethra. We will also have to expect profuse hemorrhages and unsatisfactory results if we crush the tissues by working too fast, or with an insufficiently-heated blade. True, the amperemeter indicates the strength of the current as it passes through the blade, but a cautery acts differently when burning in the air, or when surrounded by water or moist tissues. Consequently, we do not possess such an absolute reliable guide in the amperemeter as other observers state, and we will have to rely much more upon the sensation of resistance while making the incision. I also found that this resistance became more and more distinct and disturbing the more incisions I made. While it was not felt at all during the first incision, it appeared during the second, which required much more time for the same distance than the first. Upon withdrawing the instrument after the first incision I saw the blade covered with a thick layer of burnt tissue, to which I ascribed the disturbance. After scraping the same off and replacing the instrument again, I experienced no difficulty in performing the second incision, just as fast and easy as the first one. In cases where retention for a short time after a successful division exists it is due to a reactive congestion. I never found the introduction of a soft rubber catheter in such an event difficult, and would only suggest to leave it in the bladder for a few days rather than repeatedly inserting it, which latter is more likely to provoke a hemorrhage, while the former will be efficient in stopping it if it should occur.

I have not seen urethral fever in my cases, but I believe that it might appear, caused by traumatism after forcible use of the incisor.

A very strange occurrence is the epididymitis, which I have seen in about 30 per cent. of my cases, and which is conspicuous by its persistence, and because it usually made its appearance between the third and fifth weeks after the incision, and each time in the epididymis corresponding with the lateral lobe which I had incised. From the time which had elapsed between the operation and the first symptoms, I must exclude traumatism or direct infection. As the swelling appears at the time when the eschars start to separate from the underlying granulating tissue, I would feel inclined to explain the process by absorption. As I do not wish to take up your time with a citation of all my cases, I pick out the

histories of three cases which I consider instructive in many respects, stating that the result in all of the others was, and still is, highly satisfactory, the time of observation in some of them extending over seventeen months after the operation.

Case I. Patient, 71 years old, practicing physician of this city. Noticed first symptoms of frequent urination eight years ago. Experienced pain, tenesmus and increased urination in 1893. In 1896 complete and permanent retention set in and catheter life began. Calls to urinate and pain every fifteen or thirty minutes day and night for the last six months. This is the statement the patient gave me when I saw him first on the second of March of this year, when he came to my office with a profuse hemorrhage from a false passage produced by the futile attempt to pass a metal catheter to relieve his distress. Performed Bottini's operation on the 7th of March. Cystoscopic examination disclosed median lobe and left lobe enlarged and projecting into the bladder. Length of urethra, 11 inches; posterior urethra, $3\frac{1}{2}$ inches. Made one incision in each of the enlarged lobes. The first of April patient reported continence for four hours day and night, free passage of urine from $4\frac{1}{2}$ to 5 ounces. On the 13th of April continence for six hours, residual urine in twenty-four hours from 25 to 35 c. c. On the 18th of April patient came to my office with epididymitis on the left side, which has since recurred three times, and which is one of those cases of which I have spoken before. At present, May 15, there is hardly 15 c. c. of residual urine in twenty-four hours.

Case II. Patient, 54 years old. Complete retention for nearly two weeks; had had a similar attack about eight years before (then only 46 years old), from which time frequent and unsatisfactory urination remained and grew worse from year to year. Prostate the size of a large orange; the right and median lobes mostly involved; length of urethra 12 inches (for which reason cystoscopic examination was impossible). Stone searcher did not disclose presence of concretions. In spite of regular catheterization for eight days condition remained unchanged. Bottini's operation July 23, 1898. The next day voluntary urination set in; about $\frac{1}{2}$ of an ounce expelled every fifteen to twenty minutes; five days afterward, continence for two hours, amount of urine passed increased accordingly. Five weeks after the operation, continence for three hours during the night and two hours during the daytime; residual urine $\frac{1}{2}$ ounce; urination free, painless and satisfactory. Strange to say, about eight weeks after the operation patient got worse; passed bloody urine which, upon microscopic examination, did not show evidence of a tumor, and by rectal palpation the left lobe was found considerably enlarged and rather painful. Several days afterward, while passing urine with great pain in my presence, he expelled a very small phosphatic concrement, which was followed by similar ones during the next four weeks. As his condition became unbearable and a stone could not be detected by the steel sound, and as cystoscopic examination was impracticable, I advised a suprapubic cystotomy, thinking of the presence of an encysted or sacculated stone, and perhaps a tumor of the left lobe, and explained my views to the patient, who was ready to submit to any operation that promised relief. Suprapubic operation performed November 30, 1898. Trabecular bladder, and between the trabeculæ, covered by secondary tissue, fourteen phosphatic concretions were found, each the size of a small bean. Left prostate lobe ulcerated in its vesical portion; curetted and cauterized. Lips of bladder wound sutured to the skin. Patient had an uneventful recovery. Fistula closed five weeks after opera-

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tion. About one week afterward recurrence of painful micturition and bloody urine, apparently caused by malignant disease of the left lobe. Continence one hour and a half in daytime, and about three hours at night; $\frac{1}{2}$ to 1 ounce residual urine.

Case III. Patient, 64 years old. Symptoms of prostatic obstruction appeared first about nine years ago. Six years ago complete retention for twenty-four hours. Saw the patient first four months ago. At that time he had cystitis and alkaline urine; tenesmus day and night; temperature 103° F.; bilateral epididymitis. He had been in the habit of catheterizing himself during the previous two years. The calls to urinate came as often as ten to fourteen times during the night and about every hour during the day. Patient could only press out a few drops of urine at a time. Residual urine measured on various occasions between 5 and 8 ounces. Upon rectal examination the right and the median lobe were found considerably enlarged and hard. Entire length of urethra, 10 inches; posterior urethra, $3\frac{1}{2}$ inches. Cystoscopic examination corroborated the results of rectal palpation and disclosed two gonorrheal ulcers, the size of a small bean, in the trigonum, where the latter was elevated by the enlarged right lobe. Regular catheterizing and irrigations of the bladder gave some relief, but otherwise condition remained unchanged. Bottini's operation was performed December 28th, 1898. On account of ulcers in the trigonum I used antipyrin as a local anesthetic. (In a passing way I wish to say that in all cases where an absorption of cocain might be anticipated, antipyrin as a local anesthetic should be given preference. The application of antipyrin for this purpose is not of recent date. It was used in Vienna, Paris and Buda-Pesth for litholapaxy and internal urethrotomy some years ago.) Two incisions were made, each 3 centimeters in length, one in the right lobe and one in the median lobe. Left soft catheter in the bladder during the first three days. Eight days after the operation the patient had continence for three hours; residual urine $\frac{1}{2}$ ounce. Five weeks after the operation continence for six hours day and night; residual urine a few drops. Gonorrheal cystitis improved rapidly under local treatment. Length of posterior urethra $2\frac{1}{2}$ inches.

The conclusions which I draw from the experience of my own cases, and the reports of others, I should like to concentrate in a few words: The efficiency of the galvano-caustic radical treatment can be explained by the peculiarity of the actual cautery, which, in all organs and tumors rich in connective tissue, does not only display an effect on the contact surface, but also a remote one, so that every cauterized spot forms a shrinking center for the surrounding tissue. The cautery, therefore, will reconstruct the normal caliber of the prostatic urethra, while in cases in which the projections form a bar between the urethra and the trigonum it will bring the bottom of the bladder to the level of the vesical outlet, or so to speak, artificially extend the urethra into the bas fond. In the majority of cases the operation will have to answer both purposes. The success will depend on the condition of the bladder wall and its contractile elements, which have a surprising capability

of recovering and regaining normal or almost normal functions, even after years of complete retention. It goes without saying that surgical means to relieve the distressing symptoms of retention will have to be employed only when conservative methods, after a reasonable time, have failed. Among these, Bottini's galvano-caustic radical treatment will be indicated in most of the cases. Castration might have its advantages in a limited number of cases in which the gland appears diffusely enlarged and soft, but in which no projecting nodules are found. But castration is a mutilating operation, repulsive to the patient, and uncertain in its results. Suprapubic puncture and perineal drainage gives but temporary relief from embarrassment, and prostatectomy is expedient only in the few cases of pediculated lobes, and not without consequence, because it necessitates general anesthesia, as a rule, not required in Bottini's operation, and confines the patient to his bed for weeks, enhancing the risk of dangerous affections of the heart, lungs and kidneys of the old and often emaciated people with which we have to deal. Bottini's operation, even if it should only be partially or not successful at all, which will rarely be the case, is harmless and not followed by a fistula, loss of the testicles, or hypostatic pneumonia, and has therefore to be considered the mildest surgical act in prostatic hypertrophy. As contraindications I would consider only pyelitis, pyelonephritis, and such a general low condition of the patient that no benefit could reasonably be expected from any interference. I cannot see a contraindication in the fact that it becomes sometimes impossible to introduce the incisor over the projections. When it happened in one of my earlier cases I made the urethra passable by leaving a soft rubber tube in the canal for about a week — a means which I have successfully employed for the purpose of facilitating catheterization in hard, narrow-gauged strictures for years. If it should be absolutely impossible to pass a rubber catheter, I would not hesitate to perform suprapubic puncture, relieving the momentary distress, and as a preliminary step for Bottini's operation. The cases are many in which such a procedure resulted in reducing the congestion and swelling in the prostate, and a good-sized metal instrument could be passed through the urethra in a few days.

VOMITING OF PREGNANCY.

BY G. G. BUFORD, M.D.

MEMPHIS.

Science is founded on facts; facts often on theory. Theory supported by facts makes science. That women vomit during pregnancy is a fact, and that they are now and have been unsuccessfully treated for centuries is also a well-established fact that needs no support of theory. That the *casus casi* of hyperemesis during the gravid period has been *terra incognita* till now is proven by the constant failure of the applied therapy. The theory that the condition is the result of a reflex originating in the uterus, is no longer tenable. That there is a direct nervous connection between the female genitalia and stomach is as preposterous as it is absurd. Spasmodic contraction of the walls of the stomach in response to local irritation is a reflex pure and simple. A reflex is the conversion of a sensory impulse into a motor act. Emesis, which is the induced result of faucial irritation, is a reflex. Emesis, caused by a hypodermic of apomorphia is not a reflex; nor is the emesis following the administration of morphia, chloroform, ether, etc., a reflex. Motions of all kinds in the economy are the results of muscular contraction, and this is the physiological expression of a stimulus originating in the nerve center presiding over the muscles moved. In the production of organic phenomena or motions of organs concerned in nutrition, growth and decay, this stimulus, this *vis nervosa*, is generated and transmitted involuntarily. Stimuli are of two classes, normal and abnormal, and each of these two classes may be further subdivided into (a) electrical, (b) mechanical, (c) chemical. In this paper I shall give attention only to those phenomena resulting from chemical agents, both normal and abnormal.

The observable mechanical phenomena of emesis are solely those referable to the stomach as a muscular viscus, and are shown in proportion to the degree of irritation, central or peripheral, first in the sensation of pain or nausea, and second in the reversed peristalsis of the stomach, producing the ejection of its contents. Vomiting is then the result of peripheral or central irritation, as

we see from improper food on the one hand and as results of epilepsy or rather of the causes producing epilepsy and of head injuries. Since nausea and emesis of pregnancy often occur when the stomach is empty, and especially in the morning, after the contents of the stomach from previous day have been passed into the bowels, the idea of a reflex from peripheral irritation of the pneumogastric nerve is entirely eliminated. Then since nausea and emesis occur regardless of peripheral irritation, we are forced to the conclusion that there must be a central cause for it, and from the very nature of the conditions this must be a chemical substance, brought by the blood current in direct contact with the vomiting center, which is in the nucleus of the vagus, in the floor of the fourth ventricle. This may be theory, but it is theory supported by physiological facts, hence scientific data, which will be used further on.

The fact then is incontrovertibly established that emesis gravidarum is the result of a central irritation, and this irritant is a chemical substance. Now the next step is to see what and whence is this chemical substance that has so sorely worried pregnant women from the time that mother Eve ceased to be a chaste virgin to now, and has perplexed physicians since the days of Hippocrates to this the closing of the nineteenth century.

The normal result of conception is cell multiplication, the fecundated cell or ovum elaborating its constructive material from that presented to it by the blood. This cell proliferation takes place in the fetus, in the walls of the womb, and in the mother, depositing fat for future use. Cell metabolism is hyperactive in both the embryo and the mother, resulting in anabolism. Constructive metabolism is possible only by the cell appropriating to itself suitable material for its growth. Whether the cell by its inherent power appropriates the proximate principles as such, which are presented in the blood, or by its catalytic force splits up the molecules, and then recombines them, there are left in the blood current certain substances which are excrementitious in character. These are substances both free and combined, which during cell metabolism have given up some one or more of their elements, especially oxygen, nuclein, and the sulphur and phosphorus compounds. There also is *pari passu* with anabolism, katabolism. During this process nucleinic acid is liberated, which in turn is split up into uric acid and albumin, the albumin probably recombining, and the uric acid

is supposed to be eliminated through the maternal emunctories. The residue left in the maternal blood current are chemical units which combine and recombine according to biochemic laws to form intermediary and end products, to be excreted or to perform further duties in the economy, and only become deleterious when they accumulate or are produced faster than they are eliminated. Then during all mitosis we find liberated uric acid in proportion to all metabolism. During the first four months of pregnancy both fetal and maternal metabolisms are most rapid, and it is usually during this period that nausea and emesis are most distressing. This period of active development of the fetus and deposit of fat by the mother is the time that the heaviest demands are made for material for cell growth, and consequently increased desire for food by the mother. Nature makes provision for the normal elimination of these by products or leucomaines, *per vias naturalis*, and this is why we see the passage of so much urine during this period. If this excessive urination were due to pressure against the bladder by the growing uterus, we would have a smaller quantity passed at night, but the kidneys secrete at night as well as day, and we find the bladder responding to the irritation of the acid urine at night as well as during the day. When cell metabolism is active and heavy, demands are made for material, over-ingestion of food results, and we have then what Ewald calls hyperhydrochloria, and this results in transitory nephritis, which is first shown by hypersecretion and then by hyposecretion of urine. During this temporary over-loading of the digestive tract, both ptomaines and leucomaines are formed, which depress the nerve centers. Fetal metabolism is progressing, as is also maternal deposit of fat; and toxins, designed for elimination, are formed in abnormal quantities and accumulate as a result of defective elimination, the temporary or transient nephritis incapacitating the organs for the full discharge of their physiologic functions. This cycle of vicious influences is repeated day after day in various degrees. Emesis and nausea are worse on awaking in the morning, both as a result of the centers responding more readily then to irritations, and also because during the quiescence of the functions of the skin and bowels there has been an accumulation of this toxin. But little elimination has taken place while fetal and maternal cell metabolism has been active. What this substance is we dare not hazard an opinion, further than to say

that probably it is an alkaloid of undetermined chemical formula, a leucomaine of the uric acid group. We know that the ptomaines, the alkaloids resulting from action of bacteria, differ in their chemical formulæ, as they are found in different media and under different conditions, and also their physiologic phenomena differ as do their chemical formulæ. The same is true of the leucomaines, the alkaloids which are formed during cell metabolism. We find some of the ptomainic and leucomainic alkaloidal substances, when experimented with, producing one effect, and another another effect, showing that some are irritants to one center and others to other centers. We have the same conditions resulting from the vegetable alkaloids. Why morphia relieves pain, or why strychnia acts specifically as it does, and why apomorphia produces vomiting, we do not know, but we do know that when these alkaloids are given in proper quantities and under proper conditions, we can rely on and expect certain physiologic phenomena to follow, which are peculiar to the drug administered. The degree of nausea and vomiting depends on one of two conditions:

1. The increased irritability of the vomiting center.
2. The increased accumulation of the irritant.

Increased irritability may result from a want of nutrition, or from prolonged irritation by peripheral irritants or central irritants. Increased accumulation arises from deficient elimination or excessive generation of the irritant.

The anabolism of fetus and mother gives us increased generation of the irritant, and the nephritis accounts for defective elimination. These are axiomatic facts that need no theory to prove them. Summarizing then, we reach these conclusions:

1. That the *casus casus* of vomitus gravidarum is not a reflex, but the by-products of anabolic cell metabolism, which act centrally, as apomorphia does.

2. That the nephritis, which is a usual concomitant of vomitus gravidarum, and is itself the result of hyperhydrochloria, is the cause of deficient elimination. Of course the postulate that defective nutrition is a result of the above conditions is an accepted fact.

The therapeutic endeavor should be directed to relieve the cause. This is best done (1) by lavage of the stomach thoroughly three times per day with alkaline antiseptic solutions; (2) baths

and massage to enable skin to assist the kidneys; (3) by exercising freely in open air; (4) by diet of proper quantity and quality.

The induction of abortion to relieve vomiting of pregnancy I have never seen justifiable, and is only mentioned here to be condemned.

Masonic Temple.

THE SURGERY OF STRABISMUS.

BY CHARLES H. BEARD, M.D.

CHICAGO, ILL.

In response to the courteous request of my friend and colleague, Dr. E. C. Ellett, of the MEMPHIS LANCET, that I write for that journal a description of my advancement operation and other surgical methods in dealing with strabismus, I herewith submit the following:

The operation referred to, and the first one, so far as I can learn, in which only a single suture was employed, I devised, while acting interne at the Illinois Charitable Eye and Ear Infirmary, more than eleven years ago. The first published account of the procedure—a very brief one—appeared in the *American Journal of Ophthalmology* for March, 1889; then, in the same journal in 1895, a more elaborate description; and still later, it was further treated of in a pamphlet issued by the *American Medical Association Press* in the autumn of 1896. Within the past three or four years several articles in the ophthalmic literature of Great Britain and the continent of Europe have been brought to my notice, in which the writers told of original methods very similar to, and in one case—viz., Dr. N. Lindo Ferguson (Transactions of the Ophthalmic Society of the United Kingdom, vol. 17, p. 336)—practically identical with this, though it is a pleasant reflection that they all lack priority.

In most instances the first part of the operation consists in the making of the neatest possible transverse buttonhole of the tendon of the muscle opposite to that which is to be advanced. The object of this partial tenotomy is to cause a temporary breaking of the power of that muscle, so that the advanced tendon may have a relatively undisturbed period during which to make its new insertion. If done with the minimum of traumatism, we accomplish

this end, and the ultimate status of the muscle is precisely as before—neither set back, nor in any manner crippled. The tiny forceps, scissors and hooks of Dr. Stevens of New York go a long way toward making this step according to these requirements.

Here is the method I have adopted for the making of this buttonhole. I prefer to make the operation without a general anesthetic whenever practicable. Prop the eye wide open with the blepharostat, take a pair of mouse-tooth forceps sufficiently opened, and place their points on the conjunctiva, one point at the insertion, the other back of it and a little to one side of the middle; bear down firmly, and close the forceps so as to pick up the conjunctiva, Tenon's capsule and tendon, all in one vertical fold. Now, with blunt scissors, carefully cut the fold transversely, not too extensively, and exactly in line with the center of the tendon. On peering at once into the incision the practiced eye can usually detect whether or not the three layers are snipped. Still holding the forceps and pushing them to one side, a small hook, *well curved in the bend*, is put point downward into the little opening in the center of the tendon, the fibers uncovered of conjunctiva and capsule, and divided with Stevens' strabismus scissors as close as possible to the insertion and *almost* to the border. Then the other half of the tendon is taken up and treated in the same way. One must be sure of his ground at every step in order to *know* that he neither cuts through either border of the tendon, nor wounds the tissues unnecessarily. A number of times, however, I have left untouched the muscle toward which the eye deviated.

Passing now to the advancement proper: The patient is told to look far to the opposite side; with mouse-tooth forceps the conjunctiva, and only this membrane, is picked up in a vertical fold, well back of the insertion of the muscle; with small, straight scissors, slightly blunted at the points, a snip is made across the fold, exactly over the center of the tendon, and the incision thus begun is carried forward horizontally till it reaches the margin of the cornea. After the conjunctiva, the anterior prolongation of Tenon's capsule is picked up and divided in the same way; then the episcleral tissue, if there be enough of it, is in like manner incised, so that a furrow is opened, whose bottom is the naked sclera, and along which the cut tendon is to slide. By so doing one reaches the tendon by positive stages, neatly and discriminately, and avoids

giving it an unguarded snip, which is possible with too heroic cutting. The tendon, being now well in view, is slightly lifted by the forceps, and a Stevens' hook inserted beneath it, as close as can be to the insertion, and not a great, lumbering hook shoved far back through the opening, point down, then made to turn a somersault somewhere in the orbit, giving the globe a vicious rake, and landing, point up, beneath the muscle. All such gouging and prodding behind the insertion tend to increase the extent of subsequent capsular adhesion, hence to lessen the efficiency of the muscle's action. No advancement forceps are put on to chew up the tendon—an assistant holding the hook until the suture is placed. This last is of No. 1 braided black silk, and is double-armed—i. e., has a needle at each end. The needles are as fine as will barely carry the thread, and are straight two-thirds of the way from eye to point, from thence slightly curved. As a necessary precaution the needles should be tested to see that they are quite sharp. Both needles are passed downward through the tendon (see Fig. 1), at a distance from its insertion proportionate to the degree of effect desired, one near the upper, the other near the lower border, and the loop or stitch thus formed is drawn down snugly upon the tendon (or for the present it may be left standing up somewhat, not drawn entirely down). Then, taking the upper needle in the holder, the conjunctiva and anterior capsule are lifted by the forceps, and the needle passed beneath these membranes, pretty well forward, then plunged into the episcleral and subcapsular connective tissues, and plowed along until a point is reached opposite the vertical meridian of the cornea or beyond, and fully three to four millimeters from the limbus, where the needle is brought out. Merely placing the suture beneath the membranous coverings of the globe *will not suffice*; a much firmer support is required; hence the needles must be quilted through the episcleral—or, better still, superficially through the scleral—tissue. Notwithstanding the sharpness of the needles, no little exertion is needed to force them through the dense fibrous tissue, and in doing so the globe must be steadied. To grasp the conjunctiva and capsule, to this end, will not do, as these membranes will tear; so I take hold, with strong broad-jawed forceps, of the tendon at its insertion, even including the hook as held by the assistant. Precisely the same is done by the other needle below. Now obviously, if the ends of the thread were here tied, the suture

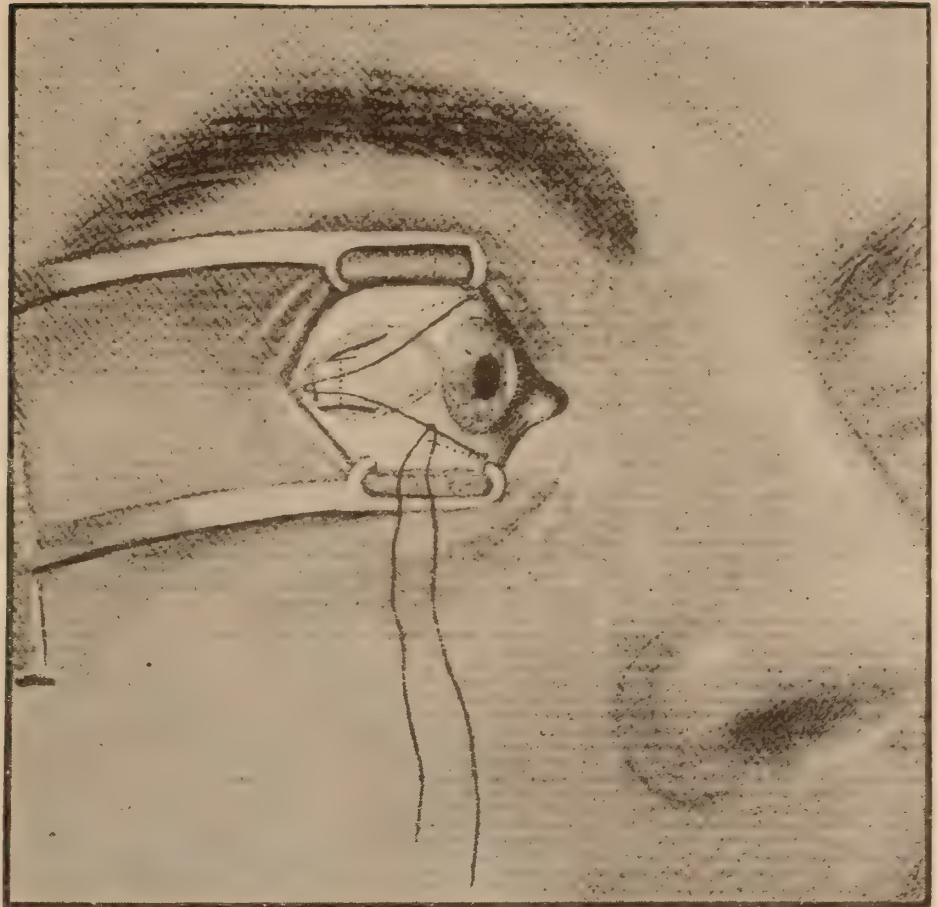


Fig. 1

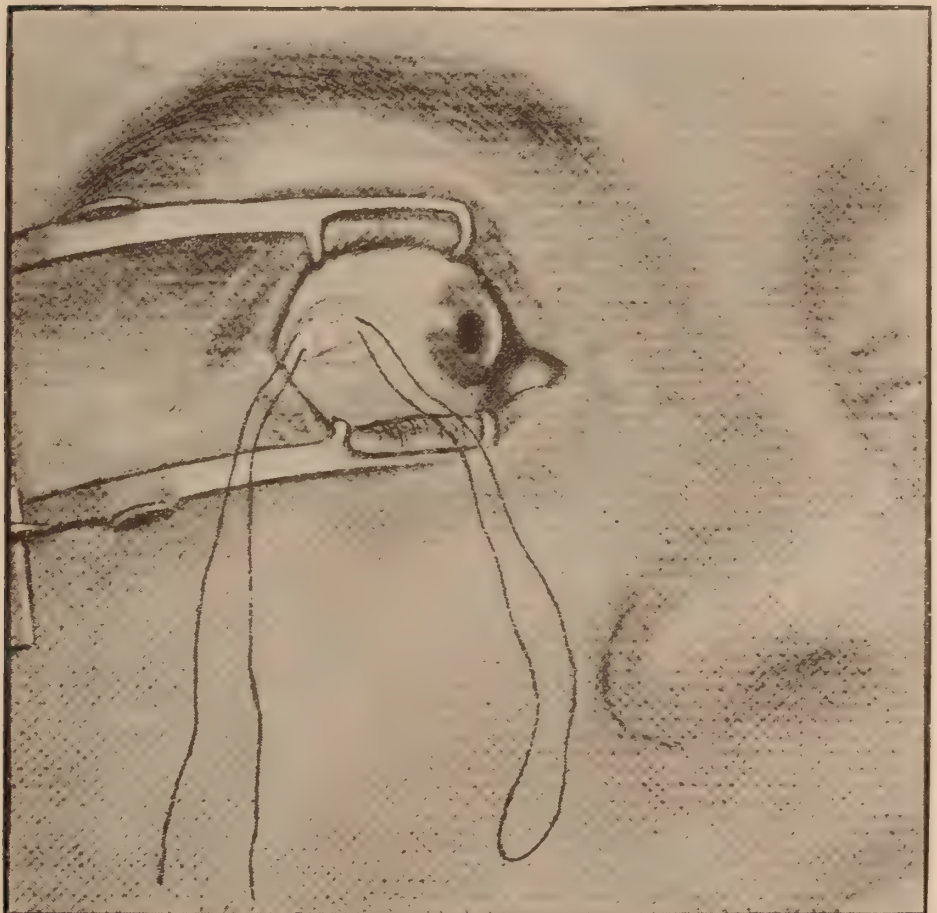


Fig. 2

would lie across the cornea; instead, however, the upper needle is again placed in the holder and passed from behind under the loop or stitch that lies vertically on the tendon (see Fig. 1), and one must be quite sure that the needle passes *under* the thread, and not *through*, even the least strand or fiber of it; for this would cause a snarl in drawing up the suture, and do away with one great feature of this operation—that of a perfect sliding pulley. To make sure we had better include a little of the tendon here, or else leave the loop standing up a little, as suggested above, so that we may see clearly what we are doing. It is better to make an invariable rule of using the upper thread for this step—as, in the first place, the knot does not lie beneath the sensitive upper lid, and in the second the removal of the suture is made simpler and easier. The parts have now been threaded, so to speak, and we proceed to divide the tendon. The thread is gotten out of the way of the scissors—if need be, held out of the way by an assistant with a strabismus hook; for, to cut it in two, were awkward in the extreme. The hook, beneath the tendon is taken by the operator, and with very delicate scissors—Stevens' are excellent for this purpose—the tendon is completely severed (see dotted line, Fig. 1); next the stump of tendon at its insertion is seized by the forceps and cut off even with the sclera. The latter step serves two very important purposes—it removes an obstacle to the sliding forward of the tendon, and prevents an unsightly lump at the site of the operation. Then, as to the tying and tightening of the suture, several points must be observed. One may have his assistant rotate the eye toward the muscle or not, but the patient should not be told to attempt such rotation. It is essential that the loop across the tendon should remain tightly drawn down; to insure this, and at the same time obviate any tearing up of the track of the suture where it lies deeply embedded under the conjunctiva, take hold of the upper thread with the dressing forceps, and the lower one with the fingers, just where it emerges above and below the cornea, and pull, not back in the direction of the advancing muscle, but away from it (in Fig. 1 toward the nose). Having in this way drawn the muscles well forward, the assistant “takes up the slack” of the end of the thread which passes beneath the loop, gives it to the operator, who lets go with his dressing forceps, and ties the suture. After passing the end through twice in the usual way, the final tighten-

ing up is done; and it probably is better here to have the helper rotate the eye toward the advancing muscle, but taking care to do so as nearly as possible in the horizontal plane.

In this procedure one notes certain most commending features of this operation: The tension being equal on all the thread-bearings, the advancing tendon is drawn neither up nor down, but comes forward in a straight horizontal line—a line coinciding with that of the longitudinal axis of the muscle, and consequently with its action. This effect is next to impossible with a multiple suture operation. Moreover, the pull being from points so far forward as the vertical diameter of the cornea, or beyond, the maximum of advancement can be obtained—that is, the cut end of the tendon can, if desired, be drawn up to the margin of the cornea. Certainly no such degree of advancement can be accomplished by any suture, or combination of sutures, where anchorage is given the same in tissue lying between the cornea and the operated muscle. To get very decided permanent effect after advancements, one must as a rule strive for even more decided primary effect—in other words, for over-effect. As to the degree of primary effect, I believe one must be guided solely by his judgment, since to attempt actual measurements and calculations—as practiced by Schweigger, for example—seems to me, in view of the yielding nature of the tissues holding the thread, to be rather an absurd procedure; and as I believe it best to *advance* the corresponding muscle of both eyes, in the great majority of cases, and not to materially *shorten* the muscle by resection of all or the greater part of its tendon, the cut end of the tendon must be gotten past the point of the original insertion, and there given a new hold upon the globe. I have demonstrated in quite a number of my cases that this had actually been accomplished. One may leave the suture tied in a long bow-knot, the shorter end of thread being always the one which controls the loop, so that after the lapse of twelve to sixteen hours, if for any reason there be occasion for modifying the effect upon the eye, the last part of the knot may be united, and the suture either tightened or slackened, as desired; and in any but dispensary practice this will do excellently. On first removing the bandage, whether one wishes to shift the suture or not, the long ends and loop of thread, which have been till now fixed by the dressing just outside the nearest canthus, are before rebandaging cut off close to

the knot. The suture is allowed to remain in the eye from eight to twelve days—the dressing being renewed during the time at intervals of about forty-eight hours. Only the one eye is ever bandaged.

Not among the least of the advantages of this operation is the facility with which the suture may be removed. Strange to say, I have observed more nervous dread and flinching on the part of the patients relative to the taking out of the thread, than to the making of the operation itself. One has merely to grasp the knot with delicate dressing forceps, cut the thread to one side of the knot, it does not matter which, and it comes readily away. If the knot itself is not seized, one risks attempting to pull the same through the tissues. The suture that holds the tendon also serves to close the conjunctival incision. So effectual, indeed, is this closure that I have never seen a granulation button here, while at the site of the partial tenotomy which accompanies the advancement, although the incision there is much smaller, the omission of a closing suture often results in a granulation tumor at that point.

Owing to the fact that strabismus is usually a binocular affection—not as to the deformity itself, but as to the muscular defect which permits the deformity—a goodly proportion of one's cases should have both faulty muscles advanced. In the writer's practice this has been done in about fifteen per cent. In cases of children, however, there should be an interval of at least one year between the operations. In no case should surgery be resorted to where there is a fair chance for correction of the strabismus by other means. Not a few of the patients one sees have divergent strabismus the result of a tenotomy, or tenotomies, for a former convergence. In view of the atrophic state of the tenotomized muscle, it has been my custom in dealing with them to advance the entire aponeurotic envelope along with the tendon.

Fig. 2 illustrates an operation which I hit upon some five or six years ago, which is adapted to certain cases where shortening of the muscle, and not advancement, is desired; though I must admit I have rarely found occasion to practice it (for it must be borne in mind that muscle shortening and advancement are not identical. The folding or looping up of the tendons, so popular among certain eye surgeons, both in this country and in Europe, is a shortening, and not advancement.) Here also the suture is a double-

armed one, the needles being of a half-curved variety, and very fine. The primary incision is the same as in the advancement, but less extensive. In this operation the advancement forceps must be used. This instrument fixes the tendon midway of the parallelogram included between the vertical lines (Fig. 2). The tendon is then divided at the point occupied by the line nearer the cornea, and the forceps given to an assistant. Catching hold of the stump of tendon with mouse-tooth forceps, the needles are passed down through the insertion, hugging the sclera, one near the upper, the other near the lower border. They are then carried beneath the tendon, without crossing the thread, and brought out correspondingly from below, and far enough back of the fixing forceps to insure a firm hold; the loop, however, is not drawn down, but is left very long, as shown in the drawing. Here the operator takes the forceps from the assistant and cuts the tendon at the point indicated by the other vertical line, thus resecting a portion. The long loop and the two ends of thread are then tied in one knot, and the cut ends of the tendon nicely butted together. The improvement claimed for this over certain other shortening operations lies in the fact that the thread embraces and supports the united ends of tendon, both in front and behind, so that they are kept in nice apposition, and not inclined to stand up in a pout.

There is, in this connection, one other operative procedure it might be well to mention. This I resort to in the small class of cases that require a complete tenotomy in conjunction with the advancement. In certain elderly subjects, when the squint has been of lifelong duration, and even exceptionally in younger ones, particularly those with congenital strabismus, the muscle toward which the eye turns (commonly the internus) is actually too short; so that the eye is practically devoid of abduction, either voluntary, or when an attempt is made to force that function with the fixation forceps. This condition, which can readily be detected by the limited rotation of the eye under the forceps, is exceedingly rare—the writer having encountered it not to exceed six times in as many hundreds of operated cases. To attempt advancement of the opposite muscle without entire severance of this short one would be to produce an unwarranted degree of exophthalmos—an effect that ordinarily does not occur.

This operation I have called a curbed tenotomy, and is similar to

the advancement—though the object in this instance being to drop the tendon back a definite distance and there fix it, the thread is not carried forward at all, but is brought out above and below in vertical line with, or very slightly in advance of, the point where it is put through the tendon, and obviously, as there is no cornea to avoid, the maneuver of passing the upper end under the loop lying on the tendon is omitted. The tendon is cut at the insertion, and the muscle dropped back to the requisite extent, and the suture tied. Of course the cut end of the tendon does not again unite with the globe—that organ being as sleek and smooth back of the insertion of the tendon as a billiard ball. In view of this fact we must leave the capsular wrappings of the tendon undisturbed to the utmost practical extent. It is unfortunate to be compelled to make such a “force-put,” and it were a pity we have not devised a method of piecing out the muscle thus set back.

Some few of my confreres in ophthalmic practice, on reading as to the technic of the advancement operation herein detailed, have conceived that it is complicated and difficult. This impression has doubtless arisen from my having dwelt at such length upon the minutiae of the operation, upon which success depends. As a matter of fact, it is one of the simplest of procedures. It is, moreover, one of the safest. There is usually some superficial reaction, but in all my experience I have seen but a single case which promised trouble. This was that of a dispensary patient, who reported on the fourth day after the operation with septic tenonitis at the site of the incision. The process was promptly arrested before any damage resulted. My experience with the operation refers to a great number of cases, many of which I have had under observation for from five to eleven years, and I can affirm that the results have been most gratifying, both to patients and to operator. I would therefore confidently and heartily recommend it to the profession. The day of the tenotomy, pure and simple, as a rational remedy for the cure of strabismus, is past. Its mangled victims have too long paraded their horrors, such as the paralyzed muscle, the secondary or opposite kind of squint, the retracted caruncle, and the ghastly exophthalmos. The day of the advancement is at hand—*fort mit der tenotomie*.

LUDWIG'S ANGINA—WITH REPORT OF CASES.*

BY ROBT. W. TATE, M.D.

BOLIVAR, TENN.

This is a common affection and worthy the notice of surgeons, as well as general practitioners, especially the latter, as it often comes before them for treatment. It is dealt with very disparagingly by textbooks, and but few, if any, articles appear in our journals. It is a violent form of inflammation affecting the areolar connective tissue of the neck. From an examination of the anatomy of the part, it is plain to see why it is that inflammation causes so much trouble confined under a thick, inelastic sheath, as is found in the fascia of the neck. This fascia is one *pons asinorum* of the medical student, and from my own observation but few understand it when they leave college. As the other fasciæ of the body, it is divided into a superficial (which does not concern us especially) and a deep layer. This last is subdivided into numerous lamellæ, which form the sheaths of the muscles, vessels and nerves, and, where it is strongest, forms ligaments and pulleys over which muscles have to act. Its attachments about the face are the zygomatic arch, covering and forming the fascia for the masseter muscle and parotid gland and the body of the lower jaw to the symphysis, where it joins the same on the other side. This layer continues uninterruptedly over the anterior surface and sides of the neck to become attached to the clavicle, sternum and interclavicular ligament below where it meets its fellow from the other side. It is pierced by but few blood vessels, and just before its attachment to the sternum the external jugular vein—the principal of these—passes through it. This layer includes the sterno-mastoid muscle in a thick sheath, from the under surface of which is given off a lamella, which goes behind the esophagus, forming the prevertebral fascia. This latter separates the neck into an anterior and posterior division, with but little communication. This anterior division of the neck is again divided into lesser divisions, which contain the muscles, nerves, etc., and form their sheaths. Different layers of this cervical fascia are continuous with the costocoracoid membrane, sheath containing the axillary vessels, and

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fibrous covering of the pericardium, thence into the mediastinum. It can be seen that pus, having gained entrance under this sheath, as strong as a ligament, sets up violent inflammation of cellular areolar tissue (Ludwig's angina), or burrows for a variable distance from the point of entrance, and forms a fistula. These two results depend upon the virulence of the pus and the physical condition of the patient.

I will report a case illustrating the virulent action of pus, while in the *American System of Dentistry* there is the report of a case where pus from a chronic alveolar abscess at the root of the second superior molar tooth became entangled in the fibers of the masseter muscle, and under its sheath continued downward and backward to the border of the trapezius muscle, where it discharged on the skin. When pus gets under this sheath, it is not in accordance with its nature to escape through it, but rather follows a course of least resistance. Neither alveolar abscesses opening on the face under the lower jaw, suppurating lymph glands, nor any of the superficial abscesses on the neck, are included in this subject. It is most commonly secondary to the following conditions, but may be primarily due to colds:

1. Alveolar abscesses are the commonest cause. Pus forms at the bottom of a carious tooth (apical pericementitis) and goes through the cancellous bone tissue surrounding the tooth socket, and separates the periosteum from the bone. The cervical fascia is attached to the bone by being closely interwoven into the periosteum. When the pus separates the periosteum, it also raises the fascial attachment and breaks through under it—being assisted in this course by gravity. This is the unusual course for an alveolar abscess to take, as they usually rupture either at the side of the crown of a tooth, on the gum, or on the face. The abscesses at the roots of the molar teeth are the ones usually causing the trouble.

2. Adenitis is a common affection, but an uncommon cause, of Ludwig's angina. When inflammation starts in a gland, this irritation causes an inflammatory thickening of its own sheath, which walls it off from the surrounding tissues. This is especially applicable to tubercular adenitis. There is a small space filled with areolar tissue at lower part of the neck, formed by the separation of two layers of this deep cervical fascia, which contains one or two lymphatic glands. Inflammation starting here would set up cellulitis.

3. In otitis media pus enters beneath the fascia forming the sheath for the sterno-mastoid muscle at the mastoid process.

The other causes producing this result are such as stomatitis (causing abscess of the submaxillary gland), diphtheria, suppurative parotitis, injuries; and as a sequel to infectious diseases are notably typhoid fever, scarlet fever, measles, etc. Pyemia, periostosis of inferior maxilla, and uncleanness of the mouth, explain themselves.

Symptoms. The first symptoms, being the same as an ordinary superficial abscess, or those of the primary affection, cause no alarm; but when constitutional symptoms, those of septicemia, and symptoms of pressure upon the trachea, larynx and mouth, appear, the physician is called. The temperature is found to be between 103° and 104° , the patient having had a chill several hours earlier; the pulse between 120 and 130; respiration labored and accelerated. There is an inability to open the mouth or protrude the tongue; speech is husky, and there is sometimes salivation, but expectoration is difficult, if possible. The countenance is anxious, and the whole picture is one of severe infection. The neck, either one or both sides, is swollen; this may not be as yet general, but soon will be if left alone, extending so generally that the jaw and shoulders may be in the same plane. Besides the usual symptoms of localized inflammation, of heat, redness, tenderness and pain, there is a brawny induration and an edema that characterize the presence of pus, even without fluctuation. The pain is severe and makes the patient assume a position rendering the neck stiff and locking the jaws. He is unable to take nourishment, as deglutition is very painful, inflammation being around the muscles governing this act. The most important fact to be noticed is that there is not likely to be fluctuation—the usual characteristic symptom of pus—and its absence should not delay proper treatment.

The diagnosis can be easily made from the symptoms, and it is thought unnecessary to make any differentiations.

Treatment. The primary condition, the causative factor, should be treated upon general principles, and extension to the neck avoided. But, as we are confronted usually by the secondary condition, it should receive appropriate treatment. This is the same as for all localities containing pus—incision, free drainage, and antiseptics. One thing to be remembered is, that the neck, containing many important vessels and the probability of deep-seated pus, the

method of incision advised by Hilton should be followed: First make an incision through the skin one-half to one inch long, and under the guidance of a grooved director the superficial and deep fasciæ are divided. If pus is not yet found, introduce a pair of artery forceps, closed, to a sufficient depth, and withdraw them opened; introduce a finger to get exact dimensions of pus cavity, when there is one, and then irrigate with an antiseptic solution. An ordinary antiseptic dressing should be applied after insertion of a drainage tube. Subsequently dress daily until there is a vast improvement in the appearance of the neck and the discharge becomes checked. A good dose of calomel and soda, followed by magnesium sulphate in six to eight hours, with quinin the same day of operation and for several days after, are advantageous. Stimulating tonics and nutritious diet should be administered as soon as practicable.

The first case I have to report is one of the severest, and due to neglect on the part of the parents. A child, age $4\frac{1}{2}$ years, had suffered for twelve days with an areolar abscess. The tooth was extracted four days before she was brought for treatment. The exact tooth was unknown, owing to symptoms of "lockjaw." The parents spoke no English, so I was unable to get a complete previous history. When seen the temperature was $103\frac{1}{2}^{\circ}$, respiration 46, pulse 140. Both sides of the neck were equally swollen beyond the margin of lower jaw, and almost to shoulders. She was unable to open the mouth or protrude the tongue; speech was imperfect, and cough frequent, but no expectoration. There were redness and edema over the whole neck, which was hard and doughy to touch. She had to be propped up in bed, breathing labored, and breath very offensive. She had taken no nourishment for three or four days, and the bowels were constipated. A very small amount of chloroform was given, and an incision was made on both sides of the neck, just below the jaw, following the method advised above. Several ounces of foul-smelling pus escaped from each side, and drainage tubes introduced. Nothing else could be done, owing to her extremely bad condition. The child died about four hours after, not responding to stimulation or other treatment. I was fortunate in obtaining an autopsy, and the findings are briefly as follow: The incisions in the neck were enlarged, and tracts and pockets of pus were found throughout the neck, between the muscles, and around the blood vessels; they followed approximately the plane of the cervical fascia. When the skin over the chest was divided, the tissues in the upper anterior part around the base of neck for four or five inches were infiltrated with pus, showing that the pressure was so great that it had broken through the deep and superficial layers of the fascia. In opening the thorax the anterior mediastinum was found to contain several ounces of pus, which was also infiltrated in the tissue around the base of the heart. The lungs were edematous throughout, and bronchioles filled with pus that had been aspirated from a discharging tooth socket. The stomach contained pus that had been swallowed. The socket corresponding to the first lower molar on the right side, was found to be open and communicated with a pus cavity below the jaw.

Case II. S. D. J. asked me to visit his son, five miles in the country, who had been ill about one week, suffering with a sore throat, and gave a history suggesting quinsy. I went prepared to open a peritonsillar abscess with a curved, sharp-pointed bistoury. Upon arrival at his home I found him suffering with suppurating angina on left side of the neck. He gave the following history: For ten days previously he had suffered with pain in the second molar, left side, about which was advised by a dentist to have it treated and save the tooth. The tooth ached so violently that he was unable to come to town to be treated. He suffered this way for one week, and noticed swelling in the neck, which grew worse rapidly, and which was seen the third day after it had commenced. The whole left side was very much swollen, red, tender, and the greatest point of tenderness was one and a half inches below the lower jaw. He suffered from dysphagia and pain running down into chest. His breathing was noisy, and he spoke with difficulty; there was no fluctuation; temperature 104°, pulse 120. An opening was made at point of greatest tenderness, entering cautiously into the neck, and one-half ounce of foul pus escaped. Chloroform was administered. The incision was at least one inch deep. Directions were given to apply hot applications continuously, which were not followed, but a piece of salt pork was applied instead, "to keep the wound running." I am ashamed to state that there were no antiseptics used in this case, for I was not prepared to treat it properly. However, the patient made an uneventful recovery.

I have seen two other cases of Ludwig's angina—one following suppurative parotitis, that was fatal, and the other, that recovered, was from a suppurating lymphatic gland on the anterior part of neck; but I failed to keep a record of these, hence will merely mention them.

I will be glad if in this article I have shown the importance of an early incision in abscesses about the face and neck, and caused the abolishment of treating them with poultices, drawing plasters, healing salves, or the skins from pieces of salt pork.

POST HOC, PROPTER HOC.*

BY W. J. CHENOWETH, M.D.

DECATUR, ILL.

The title of this paper was suggested by reading reports of cures of diphtheria by the serum treatment, many of which, in my opinion, should have been credited to other causes, and some to having *prevented* the disease. To ascribe recoveries to their legitimate causes has been the *pons asinorum* of the medical profession since medicines were first prescribed. There has always

* Read at meeting of Illinois State Medical Society at Cairo, May 16, 1899.

been a belief that there were drugs which would cure diseases, if they could be found, hence every new remedy has had the endorsement of the hopeful. And the belief that the termination of a disease was due to the treatment has been crystallized into the adage, *post hoc, propter hoc*, and finds support in the reported cures by physicians and in the advertisements of pharmacists. But the history of medicine, through all of the ages, affords abundant evidence that many supposed cures were demonstrations of nature's ability to resist disease, formerly known as *vis medicatrix naturæ*, now designated *immunity*. Fifty years ago there were no specifics recognized by regular physicians, unless an exception is made in favor of quinin, which was then given as a cure for ague as it is now, but from a different standpoint; then supposed to act as an antiperiodic, now to destroy a parasite. Dating from Pasteur's experiments on ferments, and injections of attenuated virus in the carbuncular diseases of domestic animals, a complete revolution has been affected in the practice of medicine and of surgery. Since that time but few diseases occur which are not treated with specifics. Amongst the most popular is the serum treatment of diphtheria, which is the best known and is trusted by the greatest number. Under the name of antitoxin it is used as a preventive, and possesses recognized curative properties if introduced soon after the poison of the disease is manifested by such symptoms as can be clinically recognized. But as its capacity is limited to neutralizing the toxin, it does not destroy the bacillus. Before antitoxin was known many epidemics of diphtheria were so mild that 50 per cent. of the doctors practicing in the locality where it prevailed would pass through an epidemic without occasion to make a death report. Such experiences are found now. But it was then as it is now, recoveries were credited to treatment which preceded recovery.

Jacobi said in 1880: "In many seasons the mortality is small. Many a year it was not higher than 5 per cent. of all the cases." Of diphtheria affecting the larynx, he said: "Whether it be of primary origin or extends from the fauces, it is nearly always fatal. In severe epidemics the mortality is 95 per cent." This may be explained by Dr. Borgiotto's remark in reference to mortality of the Florentine epidemics in 1872 and 1873: "Owing to incompleteness of the returns, the figures should be looked upon rather

as the relation of the *gravely affected* to the *dead*." Dr. J. H. Etheredge wrote, in 1883: "Alcohol has been given in every case of late years, and I have not lost a case." Dr. Caswell T. Poe, of Grand Island, Neb., in the same year, wrote: "The number of cases treated by me between June, 1876, and October, 1882, was 500; of these 24 died, the cause being paralysis and laryngeal trouble." Dr. Barnard, of Charleston, Ill., "had treated hundreds of cases with the loss of 3 only in ten years." There are scores of similar reports scattered through the medical journals which were published before antitoxin was discovered.

About the year 1860 Decatur, Ill., was visited by an epidemic of diphtheria, during which a number of children died from laryngeal trouble. Drs. Beaman and Trowbridge, partners, practicing in the city at the time, were reported to have treated a great many cases without the loss of one. At a chance meeting of physicians, at which these doctors were present (which happened after the epidemic had passed), they stated that they had treated 600 cases of diphtheria during the epidemic, with a loss of not to exceed 2 per cent., laryngeal cases included. This statement was fully credited, and while the treatment adopted by the doctors was very similar to that of the other doctors, the number and kind of cases included in their estimate was entirely different, they having included all of the cases of sore throat prescribed for because they regarded them as mild cases of diphtheria. Jacobi's estimate of the number of cases recovering in mild epidemics was not excessive, their recovery not having resulted from treatment, as the remedies given were as numerous as the physicians in charge of the cases. And the reason given by Dr. Borgiotto for the mortality in severe epidemics was certainly just. In the epidemic at Decatur none of the physicians, except Drs. Beaman and Trowbridge, considered it necessary to tabulate any case not recognized as diphtheria, while serious cases were looked upon with alarm.

The increased percentage of recoveries in epidemics of diphtheria, is owing to intubation and to a more skillful application of antiseptic treatment. Neither the stenosis of laryngitis nor the septic poison can be cured by an agent proven to have but a single attribute, and that one entirely incapable of antagonizing either of them. An illustration of the relation existing between the bacillus, the toxin and the patient is afforded by comparison with the

effect produced by imbibing water contaminated with the excreta and offal of a party occupying the bank of the stream from which the supply is derived. Removal of the party will prevent further poisoning of the stream. Putting an antitoxin in the stream will neutralize the toxin, and administering an antidote to the person imbibing the water may prevent injury to the organs not yet poisoned. But the person whose organs are rendered functionally incapable of duty must be relieved by other means, if relieved at all. I wish distinctly to state that my objections are not to the remedy, but to reports of cures which will not enable a student to determine whether they were made to bolster a remedy, to destroy a germ, or to cure sepsis. Publishing a large number of cures of diphtheria, the greater part of which have no other claims to recognition than the presence of bacilli found in the throats of persons not otherwise known to have the disease, is misleading, or the theory causing the injection of antitoxin is wrong. The poison causing the disease is not the bacilli, but the toxin generated by them while earning their living around a spot of denuded or weakened membrane, which permits the poison to enter the circulation. And the object of injecting the serum is, or should be, to neutralize this poison. If the antitoxin is injected before visible signs of the toxic effect can be discovered, by what right are such cases tabulated diphtheria? The disease may have been prevented, but I know of no rule of logic establishing prevention as proof of cure. The recognition of diphtheria by bacilli found in the throat, before clinical symptoms raise a suspicion of the disease, are as if a thief should be convicted of burglarizing a house which had not been robbed because he was found hanging around the premises. However bad his reputation, he should not be convicted without, at least, proof that there had been a robbery.

There is so little difference in appearance between parts affected by pharyngitis, laryngitis or tonsillitis and diphtheria that a diagnosis cannot always be made. If antitoxin should be injected because a few diphtheria bacilli are found in the mucus of the throat, and recovery should take place within twenty-four hours, by what right should such a case be called diphtheria? If no bacilli can be found under identically the same circumstances, would it then be proper to ignore the lack of bacilli and class it as diphtheria? It is such contingencies which caused Bokay to say: "In

my opinion, hesitation in the employment of serum is only justifiable in clinically doubtful cases." Employed under such circumstances, is it not indicative of a disposition to bolster a remedy rather than to weigh it in the balance of justice? It is not an exaggeration to say that antitoxin has been credited with antiseptic, antiphlogistic, antitoxic and germicide properties, and that recovery after using it has been sole proof of the claim.

Allowing four days to satisfy the most credulous that antitoxin can neither cure nor relieve the stenosis caused by diphtheritic croup, it can scarcely be credited that if tracheotomy or intubation is permitted at that time it must be preceded or accompanied by injection of serum (which is a specific for diphtheria—a mere name). That I do not exaggerate in this matter, I copy the following from a recent issue of the *Medical Record*:

"Daldy (*British Med. Jour.*, Feb. 11, 1899) reports the case of a 7-months-old child with the history of croup of seven days duration, pulse 154, respiration 76, temperature 99.2°. Croupy cough was present, together with great sucking in of the ribs and of the triangles of the neck. The fauces were natural except for a slight congestion of the ridges of the tonsils. Emetics and hot applications not bringing relief, and the dyspnea increasing, tracheotomy was performed and 1500 units of antitoxin were injected. The dyspnea was relieved, and on the following day a second injection of 1500 units of antitoxin was made. Improvement was uninterrupted, and the child progressed to a final recovery, the tracheotomy tube being removed on the seventh day. Some doubt of the nature of the case was first felt, but examination of the tracheal mucus disclosed the presence of diphtheritic bacilli. It was pointed out that in preantitoxic days diphtheritic croup was almost invariably fatal."

In this case there was not the first indication for the use of antitoxin, seven days having elapsed after the croup was recognized. That stenosis was the cause of the symptoms does not admit of doubt, nor could any other person but a blind advocate of antitoxin suppose that an injection of the serum was demanded. The absurdity is more apparent when it is recollected that although the relief was prompt and continuous, a second injection of antitoxin was made after twenty-four hours. The presence of the bacillus in the mucus of the throat for days, and even for weeks, after the poi-

soned condition has disappeared, demonstrates that it is not a dangerous guest even if disagreeable. Since intubation in this country has well nigh superseded tracheotomy, there is not the same excuse for delaying relief to the stenosis. And the success which has attended the operation in the hands of experienced and skilled operators is a token of encouragement for the future. Already seventeen out of nineteen intubations have been successfully performed, and give promise that skill, antisepsis and experience will do for intubation what has been accomplished for ovariectomy, and that the time is not far off when recoveries cannot be counted by a per cent., the hundred mark having been passed. But the time has not yet come when doctors can invariably determine an antecedent from a causal relation, being too frequently satisfied with the kind of proof which convinced Madam Blaize that her amatory conquests were secure with royalty:

“ The king himself had follow'd her
When she had walk'd before.”

Summary—Cures of disease, at all times, have been more frequently credited to antecedents than to causes.

Epidemics of diphtheria, occurring before antitoxin was known, produced no greater mortality in mild cases than they do at this time. Severe cases caused by sepsis are not controlled by antitoxin, and stenosis, from laryngeal deposit, cannot be relieved except by mechanical means. Antitoxin has but a single specific effect, that of *neutralizing the toxin*, and claims to having done this must be established by the fact that the clinical symptoms indicated that the toxin had affected the system. The presence of diphtheritic bacilli can only be corroborative and not pathognomonic.

Diphtheritic croup may be prevented by administration of antitoxin, but cannot be cured by it.

FRANCISQUE COTTE's alleged consumptive cure by the cataphoric use of formaldehyd is probably a fake. It was refused a place on the program of the section of General Medicine and State Medicine at the American Medical Association, and was refused when offered for publication to the *Journal of the American Medical Association*. Nevertheless, it was heralded in all the daily papers as having received the enthusiastic endorsement of the Columbus meeting. M. Cotte is a shrewd advertiser, whatever be the therapeutic shortcomings of his “discovery.”

THE MEMPHIS LANCET.

Articles contributed as original are exclusively for this journal. Illustrative cuts will be furnished from drawings or photographs without expense to the author. Reprints can be had at cost price if the request is written on the original manuscript.

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THE MEMPHIS LANCET,
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Memphis, Tenn.

EDITORIALS.

THE PROPHYLAXIS AND MANAGEMENT OF TUBERCULOSIS.

The most important subject discussed at the last meeting of the West Tennessee Medical and Surgical Association was the prevention and treatment of pulmonary consumption. The Rev. Dr. Powell, of Jackson, in his address, called attention to the criminal ignorance of the general public, not only of the contagiousness of tuberculosis, but of the first principles of the hygienic management of a case occurring in a family. In Mexico even the most ignorant persons have been taught that a tuberculous patient and his discharges must be looked upon with the direst dread; no one would dare to use a towel or drinking cup to which a consumptive has access. The paper of Dr. Penn also dealt with the necessity of systematically educating the laity in this respect. In the discussion the point was made that health authorities should require tuberculosis to be classified as a notifiable disease and disseminate literature dealing with the management of patients. Unfortunately, this has been tried by the Memphis Board of Health without any results. Not a single case was ever reported. The excuse offered was that the friends of the patients were sensitive on the subject and a notification would result in the dismissal of the doctor.

Now it seems to us that the fault lies, after all, with the medical profession. It is useless at the present day to discuss either the

contagiousness of consumption or the policy of conciliating the friends of consumptives. If we have not the power to insist upon the proper isolation of tuberculous patients, it is imperative that we get the necessary legislation, and that as soon as possible. This again brings up the question of politics, and our remarks in a recent editorial on medical legislation apply with equal force to all matters of this kind.

In the meantime, the dissemination of literature and the agitation of this important subject before medical bodies will pave the way to practical results.

The pioneer work done by Flick, of Philadelphia, has, unfortunately, attracted but little attention in the South. The New York Health Department is doing good work, and the citizens of that community have been brought to a fair realization of the dangers of contagion from tuberculosis. The condemnation and destruction of tuberculous cattle is a matter that can, in the South, be best accomplished in cities having hygienic laboratories. If a single dairyman can be induced to sacrifice a portion of his herd by submitting it to the tuberculin test for the distinction and preference it will bring him, the chances are that others will follow suit, and finally the dealers of milk from untested cattle will find it impossible to dispose of their wares. When this has been accomplished the public will be ready for stringent legislation.

Here, again, we wish to call attention to the populistic aggregation that did, or rather failed to do, duty as a Legislature. Before these misfits tried their hands at law-making we had a statute for the condemnation and slaughter of glandered horses and making the loss an expense on the county. This law was *repealed*. The Northern States, on the contrary, are appropriating large sums of money to free the herds from tuberculosis.

Dr. Geddes, chief of the miscellaneous department of the Bureau of Animal Industry, told the writer that among several hundred thousand tuberculin tests the subsequent autopsies invariably confirmed the diagnosis. Surely such a certain method of diagnosis should be taken advantage of.

The next thing to demand our attention is the establishment of sanatoria for the proper isolation and treatment of consumptives. This is desirable, both from a prophylactic and from a therapeutic standpoint.

The direct treatment of tuberculosis is rather beyond the scope of this article. The surgical treatment has been considered in the May number. The various injections have disappointed us for obvious reasons. They do not combat mixed infections, and the antitoxins have been too feeble to accomplish much. The notable paper of Trudeau (*Amer. Jour. Med. Sci.*, Jan., 1899) covers this ground fully. We await with much interest further tidings of the French method of the static application of formaldehyd.

It is to be hoped that the Tuberculosis Congress, at Berlin, will have some practical results to record when the proceedings are published.

For the present we would outline the following plan:

1. Let the medical societies appoint committees to formulate literature and raise money to disseminate the same.

2. Let a campaign fund be raised to be used in literature, both to the profession at large and to the general public, to insure the election of proper representatives.

3. Let a further sum be collected to pay the expenses of a committee to draft and lobby the necessary bills looking to the testing of milch cows, the notification and isolation of consumptives, the maintaining of sanatoria, the prohibiting of spitting in public places, and the education of the public regarding the dangers of contamination by tuberculosis.

Other medical legislation might be secured at the same time without any additional expense.

VOLUME III.

With this number the *LANCET* enters its third volume, and we hope we will be pardoned if we mark the occasion with a word about ourselves. The steady growth of our list of subscribers and advertisers is an evidence of the increasing favor with which the *LANCET* is regarded, and encourages the editors to persevere in their efforts to produce a clean and readable journal. We do not wish to make invidious comparisons, but would express it as our humble opinion that in amount and character of reading matter, freedom from commercialism and in all manifestations of proper journalistic enterprise, the *LANCET* is second to no journal in the South. The editors think that the usefulness of the journal will be increased

by a larger number of communications from the physicians in this immediate locality, and these may therefore be expected. The LANCET stands for the best interests of the doctors of the Southwest, and would be glad to receive suggestions or criticisms from any of them, tending to point out ways to increase the usefulness of the journal.

THE MEMPHIS LANCET PRIZE.

The MEMPHIS LANCET Prize of twenty-five dollars for the best paper presented to the Memphis Medical Society between October 1, 1898, and June 1, 1899, has been awarded to Dr. Edwin Williams, for his paper on a "Clinical Study of Chorea." This paper will appear in the next number of the LANCET.

REPORTS OF SOCIETIES.

PROCEEDINGS OF THE MEMPHIS MEDICAL SOCIETY.

Regular Meeting, June 13, 1899.

The President, Dr. B. F. Turner, in the chair.

The following members were present: Drs. Turner, Griswold, Sale, Crofford, Holder, Ellett, Krauss, Williams, Alfred Moore, Kane, McKinney, Rice, Buford, F. A. Jones, Hughey, Stanley, Webb, Neely, Smythe.

Visitors: Drs. Burwell, of Ebenezer, Miss., Burns, of Decker-ville, Ark., and Wren, of Collierville, Tenn.

Dr. F. A. Jones read a paper on *Pleurisy with Effusion, with a Report of Cases*. In two years' service at the East End Dispensary, Dr. Jones has seen, out of a total of 7000 new cases, over 100 with some form of effusion in the pleural cavity. Fifteen of these cases presented themselves in the last five weeks. From his study of them Dr. Jones makes the following observations:

1. Over 75 per cent. of cases of pleural effusion are tubercular, a fact generally recognized.

2. The condition is apt to be insidious in its development and presents few symptoms to suggest its presence.

3. Many of these cases died of phthisis. The fact was noticed, and Dr. Jones has not seen it in the textbooks, that nearly all the

cases of pleural effusion were complicated with parenchymatous nephritis.

4. In treatment he favors aspiration and reconstructives. Treatment by salts and other depleting agents is not satisfactory, and is too depressing. Four patients were presented, all males, three of whom had had sero-fibrinous effusions, and the other a purulent one. There was little to be elicited in the way of possible cause in any of the cases. The empyema patient walked into the dispensary with temperature 99° , a little cough and dyspnoea, and the physical signs of a left-sided effusion. The aspirating needle showed pus, and an opening was made posteriorly by Dr. Holder, and half a gallon of pus let out. The drainage tube is still in, but the discharge is slight and no longer purulent. The sero-fibrinous cases were treated by aspiration and iodid of potash and syrup of the iodid of iron.

Dr. W. C. Griswold said that Dr. Jones' experience was certainly unusually large, and remarkable for the good results obtained. He thinks that Dr. Jones is rather partial to iodids.

Dr. E. P. Sale was very much interested in the report, and thought the large number of cases seen recently might be explained by the recent prevalence of grippe. He thinks that Dr. Jones' treatment is rational and can not be improved upon. He is not impressed with the value of antiphlogistic and absorption-promoting remedies. He mentioned a case now under observation of septic pleurisy following a four months' abortion. At the time the fetus was delivered the patient's temperature was $104\frac{1}{2}^{\circ}$. Two days later pain developed in the left side and a septic endocarditis and pleurisy set up. There is very little effusion, but friction sounds can be heard.

Dr. T. J. Crofford asked what number of Dr. Jones' cases were purulent? How many recovered? What was the nature of the operation done for the empyema?

Dr. S. E. Rice has seen quite a number of cases of pleural effusion lately, about half of which have been purulent. In one of the latter the diagnosis was only made post-mortem. The patient had been admitted to Dr. Rice's ward at St. Joseph's Hospital, with pneumonia and a pericardial effusion. After six weeks he died, and at the autopsy a small abscess, two inches in diameter, was found at the angle of the scapula; it had ruptured into the pleura,

and formed an encysted empyema about three and a half inches in diameter. He would like to know if symptoms of nephritis antedated the pleural effusion in the cases in which Dr. Jones found nephritis.

Dr. Wm. Krauss called attention to the observation of Williams, of Boston, who could diagnose effusions by means of the Roentgen ray in the absence of all physical signs. As to the causes of pleurisy, these may be local or general. The local causes result from extensions of inflammation of the lung (pneumonia, grippe, and especially tuberculosis), from the pericardium, mediastinum, and even the peritoneum (liver abscess, appendicitis, etc.); the general causes are such as would bring the noxious irritant through the blood or lymph stream. In general terms, it may be said that inflammation of serous membranes only results from infection or bacterial intoxication. The use of iodids may be open to criticism, since a large proportion of cases of pleuritic effusions are of tubercular origin, and the administration of the iodids would tend to soften the connective tissue barrier to extension of the tubercular foci.

Dr. Edwin Williams asked how many of the cases were syphilitic.

Dr. G. G. Buford asked if measurements of the chest had been made. Bartholow has called attention to hypertrophy of the pleura in chronic cases. He was much pleased with Dr. Jones' paper.

Dr. E. M. Holder said that in the case he operated on for Dr. Jones the intercostal spaces were large and no resection was necessary. An incision was made posteriorly and low down, and a double drainage tube inserted to facilitate irrigation. Sometimes a sound is passed into the first opening and downward, and a second opening made on its tip. In this case the symptoms were very mild. There is still some serous discharge from the tube.

Dr. Wm. Britt Burns, of *Deckerville, Ark.*, said that thorough routine examination was necessary to avoid overlooking cases of this sort.

The President thinks flatness on percussion is an unreliable sign. In one case he had failed to aspirate because this sign was lacking. Another physician was called who did aspirate and found a pleural effusion. In another case with inadequate physical signs, i. e., diminished expansion and rapid breathing, but no flatness, he aspirated and found a double empyema.

Dr. Crofford prefers to make a double opening—one high and

one low—in operating for empyema, and thinks he secures better drainage in this way. The principle is that if air is allowed to enter by the upper opening, the discharges escape more freely from the lower. In answer to a question from Dr. Alfred Moore, he said that he rarely resects a rib. Most of the cases he had in mind were in children. As a general thing his pus cases have done better than the sero-fibrinous ones. He lost a child of his own from sero-fibrinous effusion, it being probably tubercular.

Dr. F. D. Smythe said that the presence of fluid in the pleural cavity can always be detected by physical examination properly conducted. The hypodermic needle is used to advantage in determining the character of the fluid only.

Dr. Jones said that in negroes a reliable clinical history is not to be obtained, hence he had laid but little stress on that part of the subject. He thinks of writing a textbook on the negro, and could discuss all his diseases under the head of either gonorrhea, syphilis or tuberculosis. Of his last fifteen cases of pleural effusion, three were purulent and two of the fifteen died. Most of the patients with effusions showed marked tuberculosis of the lungs. In hydrothorax the effusion is bilateral, and the fluid is clear—not sero-fibrinous as in his cases. Hence his cases were not effusions due to nephritis, as Dr. Rice suggests. Tubercular kidney is also common in the negro, and nearly all of the negroes are syphilitic. He is opposed to routine resection of a rib. Under some circumstances, such as obliteration of the intercostal spaces, it has to be done. It is not now considered good practice to irrigate the pleural cavity. He did not measure the chest in his cases. He promotes expansion of the chest by having the patient blow water from one bottle to another, or in children, by playing on a harmonica. He has great faith in physical signs.

Dr. Crofford reported *A Case of Recto-Vaginal Fistula*. The patient, who had borne no children, had a rectal abscess which opened into the vagina and rectum, having a small fistula situated low down. After irrigating it a while, with some improvement, the patient was anesthetized, the sphincter stretched, the rectum cleaned, and packed high up with sponges. The fistula was then injected with iodine, which stained the walls deeply. A knife was then introduced into the fistula and cut outward, making a complete perineal laceration. The track of the fistula, stained black,

was then dissected out and the wound treated as in ordinary complete laceration of the perineum. First, the rectal mucous membrane was united with superficial sutures, then the ends of the sphincter ani were picked up and sutured, and then the other perineal tissues united. The result was perfect. There is now no fistula and perfect sphincter control. The method of simply dissecting out the fistula will not suffice in cases such as this one, where the fistula is low down and the operation wound would be disturbed and healing interfered with by action of the muscles.

Dr. Smythe thinks the technique of the operation is such as to appeal to any surgeon's reason and intelligence. In the absence of childbirth as a cause, he would like to know to what *Dr. Crofford* attributed the fistula, and if he thought it was tubercular.

Dr. Crofford said he did not, and could only explain it by supposing that some foreign body, as a bone, had come into the rectum with the feces and perforated the rectal wall, setting up an abscess. In reply to a question from *Dr. Williams*, he said that the sutures in the rectum were catgut, and very superficial, serving merely to shut out infection. Silk might be used and left to cut its way out. The perineal and vaginal sutures were silkworm gut, and are generally left in two or three weeks, unless they cause irritation.

Dr. E. C. Ellett made a *Report of Cases from Practice*, as follows:
Case I. Keloid of the lobe of the ear.

A colored woman aged 27. Ears were pierced for ear-rings fifteen years ago. No trouble until ten months ago, when the present growth began and slowly attained its present size, i. e., almost round, and three-fourths of an inch in diameter. It is very hard, painless, and attached to the lobule of the ear and the skin of the cheek just below the ear. Removed on May 30th under infiltration anesthesia (Schleich); wound closed with continuous silk suture; primary union; stitches removed on June 3rd. This is an instance of true keloid, or keloid of Alibert, as distinguished from morphea, or keloid of Addison. The growth will probably recur, and the patient has been so informed.

Case II. Gonorrheal infection of a socket through the medium of an artificial eye.

A young man had his right eye removed fourteen years ago and has worn an artificial eye six years. About one week before I saw him his right eye became much inflamed (socket) and remained

so. When he came to me he had to leave out his artificial eye. There was considerable purulent conjunctivitis, the pus containing gonococci. Under boracic acid, irrigation and argonin he recovered in about four days.

Case III. Hemorrhage following tonsillotomy.

A young lady aged about 22 complained of accumulations forming in the crypts of both tonsils. These crypts were cauterized repeatedly with the actual cautery without much benefit. She had been previously treated by throat specialists elsewhere with the same result. May 9th, amputation of the left tonsil with serrated scissors and cold snare. Operation completed about noon and strong nitrate of silver solution applied. About 2 o'clock, following a meal, the tonsil started to bleed, and continued in spite of ice water gargling. She returned to the office, and Monsel's solution, peroxide of hydrogen, nitrate of silver, the actual cautery, gallic and tannic acid and ice were applied, and had no effect on the hemorrhage; finally controlled by direct pressure. The bleeding in this case was a free flow, apparently venous. The precise point from which it came could not be located.

Case IV. J. W. M., age 55, was taken sick on Jan. 4th, 1899, with violent pains in his eyes and head, and became in a few days blind. It was said by his attendants that he had neuralgia, and would recover. Dr. N. R. Townsend, of Black Rock, Arkansas, saw him about May 1st and made a diagnosis of glaucoma. He brought him to me May 31st. The case was typical double absolute glaucoma, with dilated pupils, shallow anterior chambers, steamy corneæ, and balls of almost stony hardness. He was absolutely blind and in constant pain, requiring that he be kept under the influence of morphin. In consultation with Dr. Sinclair an operation (iridectomy) was advised for the relief of pain, but declined. He was passing a small quantity of highly acid urine, and was therefore put on alkaline diluents and hot water and eserine (gr. vi to the ounce) locally. The balls became a little softer and the pain so much better that he was able to do without an opiate. The sight did not improve. This case illustrates the disastrous results of a failure to make a diagnosis in glaucoma, since in many cases the sight can be saved if taken in time. Neuralgic pains in the head and eye, with loss of sight, are very apt to mean glaucoma, and in such case an eye surgeon should be consulted at once.

Cases V and VI. Two cases of acute mania following cataract operation.

A negro woman aged 60. Senile cataract extracted from the right eye with iridectomy on the 28th of September. There was no incident in the course of the case until the evening of Oct. 2d, when she became much excited by a woman in the next bed having a hemorrhage from the lungs, and in a short time became maniacal, necessitating her being strapped in bed. She recovered completely in less than twenty-four hours on being removed from the hospital to her former surroundings. A cataract was subsequently removed from the eye without any serious consequences.

A negro woman aged 65. A mature senile cataract, complicated with posterior synechiæ and atrophy of the zone of Zinn, was removed from the right eye with iridectomy on May 29th. There was delayed closure of the wound but no other event until the evening of May 31st, when, without apparent cause, she became maniacal, though to a much less extent than the preceding case. She was removed from her room to the ward and slowly recovered her reason, and at the end of three or four days was dismissed in apparently good mental condition. Holocain anesthesia was used in both cases.

This seems to be a rather unusual complication of cataract operation. Cases have been recently reported by Del Castillo (*El Siglo Med. de Madrid*, Feb. 12th, 1899) and Fromaget (*Annales de la Policlin. de Bordeaux*, 9, 1898). Dr. Minor, of this city, reports one in the *Archives of Ophthalmology*, Jan., 1891, dependent, in his opinion, on the new surroundings, confinement, the maintenance of the recumbent posture, and the bandage. Writers on general surgery have noticed these psychoses following surgical operations.

Dr. Smythe said that in a paper before this society some time ago he had spoken of the greater relative prevalence of keloid among negroes—in fact it rarely occurs in whites. Recurrences have followed removal so invariably, that he has abandoned the operation unless the patient earnestly desires it. He thinks the recurrent growths are generally larger than the primary ones. He has seen keloids develop in the scars left by the pustules of small-pox. Regarding tonsillar hemorrhage he thinks to use the so-called styptics is a waste of time, and prefers to use pressure; this failing, which will be rare, resort can be had to ligation of the external

carotid artery. In one case the latter procedure and transfusion of salt solution was necessary. Recently an ophthalmological acquaintance had related to him a case of acute double glaucoma cured by iridectomy, and three cases of insanity following cataract extraction. One of the last patients jumped out of a third story window. On account of this complication, operators now advocate allowing these patients more liberty.

Dr. Richmond McKinney has never seen a hemorrhage following tonsillotomy, but has recently had an annoying amount of bleeding follow amputation of the uvula in a young man. It was controlled by nitrate of silver.

Dr. Sale said that in two cases of hemorrhage following removal of tonsils, he had controlled the bleeding by pressure with a wad of cotton saturated with antipyrin, which he thinks is an excellent styptic. The iron salts are worse than useless, and when the bleeding is arterial, mechanical means are by far the best.

Dr. Ellett, in reply to a question from *Dr. Alfred Moore*, said that the cavity left by removal of the tonsil was hardly large enough to tampon, and if it had been packed, the action of the faucial muscles would probably have expelled the packing. He had saturated the gauze used as a compress in his case with a solution of suprarenal extract, but was inclined to think the pressure had more to do with controlling the bleeding than the drug, and had not mentioned the latter.

The following gentlemen were elected to membership: *Dr. Bruce Harkness*, *Dr. W. T. Black*, *Dr. J. L. Barton*.

DR. LOUISE DROUILLARD, of this city, relates a peculiar case of masturbation in the *Woman's Medical Journal* for June. The patient, a girl of 20, placed the back of her thumb on her cheek and pressed with the middle finger alternately on the end of her nose and the ear. After a few such manipulations the patient folded her hands and assumed a dreamy, pleased expression for a few minutes. It was discovered that the procedure developed sexual excitement and an orgasm, the patient not being aware of the nature of the act. There were choreic manifestations limited to the hands.

PROGRESS OF MEDICINE.

REPORT OF 78 CASES OF PULMONARY TUBERCULOSIS TREATED WITH WATERY EXTRACT OF TUBERCLE BACILLI.—Dr. Karl von Ruck (*Therapeutic Gazette*, Feb., 1899), giving due credit to the advantages of the favorable climate of the Asheville plateau as well as to the systematic employment of hygienic and dietetic methods, in a special institution, shows nevertheless by his results the unmistakable favorable influence of this preparation, which he perfected in his laboratory in February, 1896.

He with many others, notably Professor Koch, have long realized that the bodies of tubercle bacilli contain a soluble substance, a proteid upon which the curative action of all tuberculin preparations and modifications must depend, small and variable quantities of which were thought to enter into the culture fluid from which the tuberculin preparations are made.

Experiments upon animals have shown that the injection of dead tubercle bacilli produce both curative and immunizing effects, but they have always produced abscesses at the point where they were injected and often spurious tubercle in the animals experimented upon, conditions which seemed to preclude their use in the treatment of human tuberculosis.

A solution of the tubercle bacilli, without injury to the curative proteids, was therefore naturally sought for, and in April, 1897, Professor Koch announced that he had accomplished this in the production of Tuberculin R., which was then given to the profession.

Several weeks later Dr. von Ruck announced his success in also making the desired solution, and communicated his experiments and methods in a paper read before the American Climatological Association and published in its transactions for 1897 and also in the *Therapeutic Gazette* for June, 1897. His method of preparation differs, however, from that published by Professor Koch.

Koch's claim that in a true solution of the tubercle bacilli the final perfection of a specific remedy was attained, would appear to be verified by the results which Dr. von Ruck reports.

He treated with his watery extract 20 cases in the early stages,

all of which recovered, with an average gain of 11 pounds in weight, and subsidence of all symptoms.

Of 37 cases in a more advanced stage 27 recovered, 7 were greatly improved, 3 improved, and none grew worse, gaining on an average nearly 13 pounds each.

Twenty-one cases in a seriously advanced stage were also treated, of which 3 recovered, 9 were greatly improved, 7 were improved, only 2 grew worse or died, there being an average gain in weight of $10\frac{1}{2}$ pounds each.

The remedy was also given for trial to Dr. Denison, of Denver, Dr. Taylor, of St. Paul, and Dr. Williams, of Asheville, all of whom obtained good results, Dr. Williams supplying the data of 12 cases treated by him with von Ruck's extract, shows 7 early stage cases, all of which recovered; of 3 cases in the second stage, 1 recovered and 2 were greatly improved, and of 2 far advanced cases, 1 recovered and 1 grew worse.

Comparing his previous results with those obtained with the watery extract in von Ruck's institution he shows the results as follows:

	Cases.	Per cent. recovered.	Per cent. improved.
Treated without specific remedies.....	816	12.1	31.0
Treated with Koch's original tuberculin.....	379	35.5	37.5
Treated with antiphthisin and tuberculocidin.....	182	32.5	46.8
Treated with tuberculinum purificatum (von Ruck)...	166	43.4	39.2
Treated with watery extract of tubercle bacilli (Ruck)	78	64.1	33.3

Full directions are given for the use of the watery extract, the beginning dose being .001 of a milligram, and this is gradually increased to 5 milligrams. There are three solutions, No. 1 containing .01 of 1 per cent., No. 2 .1 of 1 per cent., and No. 100 containing 1 per cent. of the anhydrous extracts.

THE TREATMENT OF APPENDICITIS.—The *Philadelphia Medical Journal* of June 3, 1899, quotes from the *Lancet* a communication made by M. Poirier to the Paris Society of Surgery in connection with their discussion on the treatment of appendicitis, which has just closed. The physicians, with Professor Dieulafoy at their head, insisted that appendicitis ought to be treated at the earliest possible moment by operation, while the surgeons, led by Professor Tileaux, considered that a waiting policy and medical treatment

were quite sufficient, and that this was especially the case in a first attack. While not the authoritative expression of the Society, this communication virtually reflects the general opinion, and is as follows :

1. There is no medical treatment of appendicitis
2. In acute cases operate as soon as possible after the diagnosis is made.
3. In doubtful cases it is better to operate.
4. In subacute cases it is possible to wait and operate *à froid*, i. e., between the attacks, but most of the members of the Society prefer to operate at once.
5. Suppurative appendicular peritonitis demands instant operation.
6. In slight cases it is less risky to operate at once than to wait and operate *à froid*, and diagnosis, especially in the early stages, is anything but easy.
7. The steps of the operation must vary according to the needs of each particular case; resection of the appendix should be practiced in every case where the search for it does not involve much injury to the tissues. The possibility of a ventral hernia after the operation *à chaud*, i. e., in the acute stage, is not a reason for putting off operation, for the risk of this occurring is less than the risks from waiting.

M. Poirier added that if any definite rules for the conduct of a case of appendicitis had been arrived at, the credit was due to Professor Dieulafoy.

CRANIOTOMY.—Davis (*Obstetrics*, March 8, 1899), after discussing craniotomy, says in conclusion :

We may again draw attention to the fact that while Cæsarean delivery and symphysiotomy are very successful in uninfected patients, when septic infection is present every chance should be given to the mother, at the expense of the fetus. So greatly does septic infection militate against the recovery of a patient requiring a grave obstetric operation, that it should be an important factor in determining the choice of a method of delivery. While we may regret it, we must admit that unsuccessful efforts to deliver a patient seriously complicates her case. Unless, therefore, we know that such efforts have been made carefully, amid clean surround-

ings and in an aseptic manner, we are justified in assuming that patients who have thus been unsuccessfully treated have become infected. In justice to Cæsarean section and symphysiotomy, these operations must not be done upon improper cases; and among those which are not fit for Cæsarean section and symphysiotomy, cases of preëxisting septic infection occupy by far the most important place.

SEVEN CASES OF DIPHTHERITIC CROUP—TWO ABORTED BY ANTITOXIN AND FIVE CURED BY ANTITOXIN AND INTUBATION.—R. M. Harbin (*Atlanta Journal-Record of Medicine*) concludes as follows:

1. Numerous statistics prove that antitoxin has lessened the mortality of diphtheria one-half.
 2. The remedy is never toxic in its effects, and never causes or increases albuminuria, if properly used, and does not interfere with the use of other remedies.
 3. The dose of antitoxin in laryngeal cases should be from 1500 to 4000 units, according to the age and condition of patient.
 4. In weak anemic and albuminuric cases its administration should be more guarded, as the restraining effect on the kidneys in one case was due to a faulty administration.
 5. Antitoxin favors resolution of the membranes in cases subjected to intubation, lessening the absorption of toxins, and renders an early removal of the tube safe.
 6. Antitoxin has a favorable effect on the mixed infections.
 7. From a personal observation of three successful out of five tracheotomies and five consecutive successful intubations for croup, my preference is for intubation, except in rare cases.
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THE SURGICAL TREATMENT OF HIGH MYOPIA.—Würdemann and Murray (*Annals of Ophthalmology*, April, 1899) report a case of their own and one from the practice of a colleague in which the clear lens was removed for the purpose of improving the vision and arresting the progress of myopia. After a most thorough and careful review of the literature, the following resumé is given:

1. Surgical treatment of myopia should be limited to those cases over —12 D., who suffer great inconvenience from their correcting lenses. The ideal cases for operation are those of —17 to —18 D.

2. The operation is mainly indicated in young adults.

3. Cases having active disease and changes in the ocular structures, such as progressive myopia, choroiditis, fluidity of the vitreous, or detachment of the retina, are not applicable.

4. The dangers of operative interference are more than counterbalanced by the results to be achieved, which are mainly increase of visual acuity and of the visual field, and more extended use of the eyes which accompany diminishment of the refraction.

The opportunities for observation of high degrees of myopia, particularly of operation for same by the American surgeon, are limited in proportion to those of ophthalmologists in the old world. Even there only about 1000 cases are reported. By individual reports, however, we can add our evidence to the already-proven value of surgical treatment for this class of cases.

HOW TO INDUCE LOCAL ANESTHESIA BY CATAPHORESIS OF COCAIN.

H. Lewis Jones (*Clinical Journal*, March 8) says that this process as a means of local anesthesia for trivial operations is used as follows: The solution of cocain in guaiacol recommended by Dr. Morton, of New York, is used. It consists of 6 grains of the alkaloid of cocain to the dram of guaiacol. If a little of this mixture upon a piece of blotting paper is placed on the skin, and a current applied through it, the cocain quickly penetrates, and an anesthesia sufficient for the purposes which I have indicated can be produced in about four or five minutes. The positive electrode should be placed on the blotting paper. It should consist of a flat disc of suitable size. A platinum surface is the best, but tin or any other metal that does not easily become corroded will do almost as well. Care must be taken that the metal itself does not touch the skin at any point. The current is then turned on until it reaches about four milliamperes for an electrode half an inch in diameter. At first from ten to fifteen cells are necessary to produce this current, for the solution has a high resistance; but soon conduction improves, and the number of cells may be reduced. A slight pricking pain is felt during the first minute of application, but this gradually passes off, and its disappearance indicates that the drug is commencing to act. It is not necessary to prolong the action more than four or five minutes, nor should the current much exceed four or five milliamperes for the above mentioned size of anode, because

the solution itself is slightly caustic, and may produce a superficial irritation if applied for too long a time. The blotting paper being removed, and the part wiped with a tuft of cotton wool, the operation may be commenced. Common sensation may not be entirely done away with, but the perception of pain is so nearly abolished that the patient will bear the introduction of a needle with calmness.—*N. Y. Med. Jour.*

SCARLET FEVER IN MILK.—An editorial in the *Philadelphia Medical Journal*, vol. 3, no. 14, says that in an unusually large number of cases of scarlet fever occurring in a certain section of Buffalo, N. Y., within three days, investigation showed 21 to be on the route of one milkman. More investigations caused other sources of infection than the milk supply to be eliminated, and 8 more cases developing on the same man's route, an inspection was made of the sources of his milk supply. One of the dairymen supplying him was found to be convalescent from a malady, the nature of which was doubtful, but 4 members of his family had scarlet fever at the time, so it is evident that he had probably had the same disease, and in attending to the milking and shipping during convalescence had sent disease germs to innocent families in the city. A quarantine was at once established, and no more milk from that farm allowed to come into Buffalo, whereupon the spread of the disease was checked and its continuance limited to the families infected. The thorough system of inspection maintained by the Department of Health in Buffalo could well be copied. Every infectious disease must be immediately reported. The premises are inspected and probable or definite sources are remedied. A register is kept of the milk dealers doing business within the city, and every case of infectious disease is credited to the respective dealers.

DIAGNOSIS OF SOME OF THE COMMON ERUPTIVE FEVERS.—Frank W. Wright, New Haven (*Pediatrics*, April 1, 1899), gives the following points:

Smallpox. Two days prodromes with chill, severe backache, headache and high temperature; on third or fourth day eruption occurs, and fever remits. Eruption first macular, then papular, shot-like feel, never vesicular under twenty-four hours. Vesicle

always truly umbilicated, hard to rupture, and becomes pustular in four or five days with secondary fever. Eruption may be in mouth and throat, and usually first appears on hair margin and wrists.

Scarlet fever. Short stage invasion, chill or convulsion, high temperature, vomiting. Eruption first twenty-four hours; fever does not abate with its appearance. Appears first on chest and arms before face. Is efflorescent, scarlet never papules or vesicles, and impalpable to touch. Throat sore, strawberry tongue.

Measles. Coryza, bronchitis for four days, then rash first on face. Temperature does not fall with its appearance. Eruption crescentic, slightly raised. Grissol's differential sign between measles and smallpox is that on stretching skin it is smooth in former while hard elevations are felt in latter.

Chickenpox. Profuse in an adult, may be confounded with smallpox. Differential points are: few hours of prodromes, less severe constitutional disturbances, less headache and backache. Papules last only few hours, not shotty. Vesicles form early and rupture easily. Umbilication apparent, not real, and due to black center in vesicle. Occurs in crops having all stages of eruption, and vesicles do not go on to pustulation.

BOOK REVIEWS.

Any medical book can be obtained through the **Lancet** at publisher's prices, postage free. Terms cash. The usual discounts are allowed.

A Review of Recent Legal Decisions Affecting Physicians, Dentists, Druggists, and the Public Health. Together with a Brief for the Prosecution of the Unlicensed Practitioners of Medicine, Dentistry or Pharmacy, with a paper upon "Manslaughter, Christian Science and the Law," and other matter. By W. A. Purrington, of the New York Bar, Counsel of the Dental Society of the State of New York, and Lecturer on Dental and Medical Jurisprudence in the New York College of Dentistry; one of the Collaborators in a "System of Legal Medicine," by Allen McLane Hamilton and others. New York: E. B. Treat & Co., 1899. Price, 50 cents.

This little book covers decisions rendered during 1898 which affect the professions indicated in the title, and is intended as a sort of an appendix to Treat's Medical Annual for 1898. Medical men are being brought into contact with the law more than for-

merly, either individually or as a profession, and it is of some importance to have at hand a reference book to determine the status of such legal questions as may confront them. The brief for the prosecution of unlicensed practitioners seems to cover every possible form of offense that might arise, and should be the means of promoting a successful and united attack on those who would evade the requirements of the law. As a unique and extremely useful book, we heartily recommend this one, taking it for granted that the law in it is reliably quoted.*

Saunders' Medical Hand Atlases. Atlas of Diseases of the Skin, with an Epitome of Pathology and Treatment. By Professor Dr. Franz Mracek, of Vienna. Edited by Henry W. Stelwagon, M.D., PH.D., Clinical Professor of Dermatology, Jefferson Medical College, Philadelphia; Physician to the Department for Skin Diseases, Howard Hospital; Dermatologist to the Philadelphia Hospital, etc. With 63 colored plates and 39 full-page half-tone illustrations. Philadelphia: W. B. Saunders. Price, cloth, \$3.50 net.

While all of this series of atlases that we have seen so far are very good, this is the best. In addition to being an atlas, it gives some very good suggestions on treatment and symptomatology. The first 191 pages are devoted to a description of the more common skin diseases and their treatment. Then are added the colored plates and full-page half-tone illustrations. Some of the clinical pictures portrayed are striking, and as diagnosis in skin diseases depends on objective symptoms, this makes the book invaluable to a general practitioner. It is not a very exhaustive atlas, but comprises all common and many rare skin diseases. It is very neatly bound, and convenient in size. The colored plates are very fine, some of them especially. The one on Lichen Ruber Planus is the most perfect the writer has seen. A few plates are a little highly colored. Altogether, we commend this book very highly, and suggest that at a moderate price a reliable skin atlas is placed within the reach of all students and practitioners.

The Newer Remedies. A Reference Manual for Physicians, Pharmacists and Students. By Virgil Coblentz, A.M., PH.M., PH.D., F.C.S., etc., Professor of Chemistry and Physics in the New York College of Pharmacy; Author of "Handbook of Pharmacy;" Member of the Chemical Societies of Berlin and London; Fellow of the Society of Chemical Industry, etc. Third edition, revised and very much enlarged. Philadelphia: P. Blakiston's Son & Co., 1899.

Decennial revisions of the U. S. Pharmacopeia cannot keep pace with pharmaceutical activity, nor are the various textbooks on the subjects quite adequate to the task of giving us reliable information about the newer remedies, they being necessarily restricted in the number of them which they consider. Therefore the present volume will be found very acceptable as presenting in a concise and convenient form the necessary information concerning the newer remedies. The fact of a third edition being deemed necessary, together with the author's standing, insure the quality of the book. The name sufficiently indicates its character. We commend it as containing in a handy form much information otherwise hard to obtain.

NEWS AND NOTES.

DR. M. GOLTMAN returned on June 11th from a two-weeks visit to the hospitals of New York.

THE LANCET expresses its sincere sympathy to Dr. G. G. Buford in the loss of his wife, who died on June 19th.

DR. J. L. JELKS was absent from the city early in June, attending the meeting of the American Medical Association.

DRS. R. W. MITCHELL, F. D. Smythe and W. B. Rogers spent part of the last of May and first of June on the Gulf coast.

DR. E. C. ELLETT, of the LANCET, has been elected a member of the American Laryngological, Rhinological and Otological Society.

DR. W. T. BRUNNER, chief of the U. S. Marine Hospital Staff at Havana, has accepted the position of Health Officer of Savannah, Ga.

THE *New York Medical Journal* advocates the conferring of legal right of way on the infirm, thus lessening their dangers on the crowded streets of cities.

DR. R. B. MAURY has resigned his position as Gynecologist on the Staff of the City Hospital. He will spend the month of August among the lakes of the Northwest.

DR. THOS. OSMOND SOMMERS, formerly Major and Surgeon to the Second Regiment Tennessee Volunteers, committed suicide in St. Louis on June 19th. Dr. Sommers served Memphis during the yellow fever of '78, and a few months ago was the guest of the Memphis Medical Society, delivering an address on the fevers of Cuba.

THE American Proctological Society has been organized, with the following officers:

President—Dr. Jos. M. Matthews, Louisville.

Vice-President—Dr. Jas. P. Tuttle, New York.

Secretary and Treasurer—Dr. Wm. M. Beach, Pittsburg.

The Society will meet in Washington in May, 1900.

THE Arlington Chemical Company have purchased Granville Smith's picture of "The Country Doctor," which was one of the principal canvases at the National Academy Exhibition. It is their

purpose to exhibit the original at various society meetings and to produce small *fac simile* lithographs, suitable for framing, which will be ready for distribution in the late summer. The copies will sell for ten cents each, and form a suitable companion piece for Luke Fields' "The Doctor," recently sent out by the same company.

The following have been elected officers of the American Medical Association :

President—Dr. W. W. Keen, Philadelphia.

First Vice-President—Dr. C. A. Wheaton, St. Paul.

Second Vice-President—Dr. E. D. Ferguson, New York.

Third Vice-President—Dr. G. M. Allen, Liberty, Mo.

Fourth Vice-President—Dr. W. E. D. Middleton, Davenport, Ia.

Secretary—Dr. G. H. Simmons, Chicago.

Treasurer, Dr. H. P. Newman, Chicago.

Assistant Secretary—Dr. J. A. Jay, Atlantic City, N. J.

Librarian—Dr. G. W. Webster, Chicago.

The next meeting will be held at Atlantic City.

THE College of Physicians of Philadelphia has issued the following notice :

The Fifth Triennial Prize of Five Hundred Dollars, under the Deed of Trust of Mrs. William F. Jenks, will be awarded to the author of the best essay on

"The Various Manifestations of Lithemia in Infancy and Childhood,
with the Etiology and Treatment."

The conditions are, that the "prize or award must always be for some subject connected with Obstetrics, or the Diseases of Women, or the Diseases of Children;" and that "the Trustees, under this deed for the time being, can, in their discretion, publish the successful essay, or any paper written upon any subject for which they may offer a reward, provided the income in their hands may, in their judgment, be sufficient for that purpose, and the essay or paper be considered by them worthy of publication. If published, the distribution of said essay shall be entirely under the control of said Trustees. In case they do not publish the said essay or paper, it shall be the property of the College of Physicians of Philadelphia."

The essay, which must be written in the English language, or if in a foreign language, accompanied by an English translation, must be sent to the College of Physicians of Philadelphia, Pennsylvania, U. S. A., before January 1, 1901, addressed to Richard C. Norris, M.D., Chairman of the William F. Jenks Prize Committee.

Each essay must be typewritten, distinguished by a motto, and accompanied by a sealed envelope bearing the same motto and containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay. The Committee reserves the right not to make an award if no essay submitted is considered worthy of the prize.

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CLINICAL NOTES.

CAUTION IN THE USE OF PROPRIETARY REMEDIES.—However great the opposition on the part of many members of the medical profession to the employment of proprietary preparations, most physicians realize that justice to their patients as well as to themselves demands the use of such remedies. Such proprietary preparations do not, of course, include the secret nostrums, which no self-respecting physician will employ. Whenever a preparation of value is perfected by the enterprise and patient investigation of any manufacturing chemist, there immediately appear upon the market a score of imitations, the manufacturers of which have expended upon their product a minimum of time, capital, and brains. To trade thus upon the reputation of an established remedy by similarity of name is culpable enough, but to go further and appropriate for the imitation the literature of the original, making it appear that certain investigations which have proved the value of a given remedy apply not to this particular product, but to the crude ingredients which it contains, regardless of the special manner in which they are combined, is a form of imposition which should not be tolerated. No proprietary preparation in recent years has attained greater or better deserved popularity than Gude's Pepto-Mangan,

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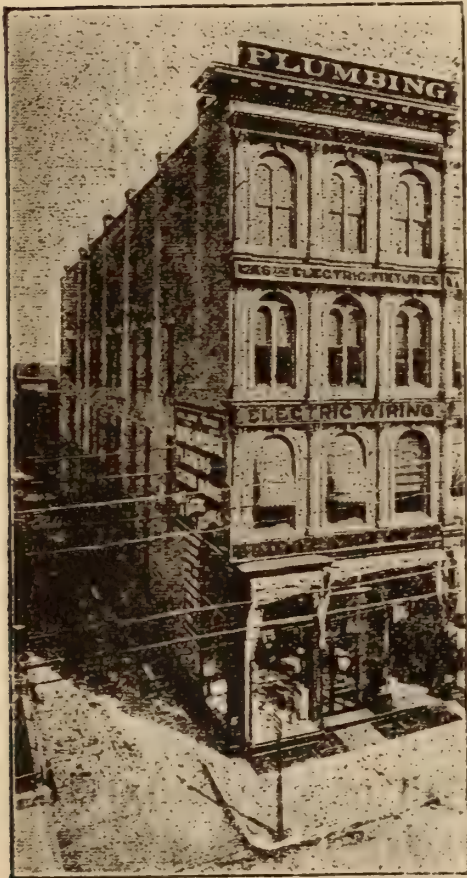
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New York.

nor has any been handled in a more ethical manner. The natural consequence has been that innumerable preparations in imitation of this product have been placed on the market, all with more or less similarity of name, and all clearly intended to be sold on the merits of the original.—*Med. Register*.

CHRONIC CYSTITIS.—In the *Alkaloidal Clinic*, Feb., 1899, a correspondent reports the following case: A farmer's wife, aged 32, for three years has had bladder pain during and after urination. She passes some blood and mucus at times, while at others the urine is clear. She urinates hourly by day and several times by night; feels worse when riding and in cold weather, and complains of aching over the sacrum. The editor recommends as follows: There may be an ulcer in the urethra; look for it. Give salol, grs. v, four times a day, and wash out the bladder with warm water containing benzoic acid, 30 grs. to a qt.; then throw into the empty bladder an oz. of euophen-petrolatum. Give hyoscyamin (amorphous) enough to control the pain or redden the skin, every evening. Salol, in passing through the urine, destroys all microorganisms and greatly relieves an irritable bladder. Benzoic acid promotes a healthy condition of a mucous membrane to which it is applied, and euophen heals ulcers and kills gonococci.

CHOLERA INFANTUM.—Dr. Geo. Joachim (*Deutsche Medicinische Wochenschrift*) states that, while we have in calomel an excellent remedy for cholera infantum, it sometimes proves objectionable by increasing the drain of fluids from the system. This is especially true in cases in which the diarrhea has persisted for a number of days. Under these circumstances the author advises the use of calomel in minute doses ($\frac{1}{2}$ gr.), which does not increase the purgation, but exerts a disinfectant action upon the bowels. In combination with this drug he employs Tannopin in 5 to 7 gr. doses, three to four times daily. This formula proved of great value in 51 cases of acute intestinal or gastro-intestinal catarrh in connection with the customary dietetic regulations. Owing to the fact that it is completely innocuous, Tannopin may be administered without the slightest risk to the smallest infants. Joachim recommends that the administration of Tannopin be continued in small doses for a few days after the diarrhea has completely subsided, in order to avoid the possibility of recurrences.



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No. 2

ORIGINAL ARTICLES.

GUNSHOT WOUNDS IN CIVIL PRACTICE.*

BY W. L. ESTES, A.M., M.D.

SOUTH BETHLEHEM, PA.

Chief Surgeon to St. Luke's Hospital.

The recent war has given a fresh impetus to the study of the technique of treatment of gunshot wounds. Recent writings have pretty thoroughly exploited the nature and treatment of gunshot wounds received in modern battles. Rifles, such as are now used by armies in the field, are of small caliber. They use long conical steel or metal-jacketed bullets which are fired at tremendous velocities and at long range. The wounds inflicted by these guns differ both in effect and prognosis from wounds produced by the ordinary cheap civilian pistols which have short, blunt leaden bullets of very low (comparatively) velocities, and which inflict the injuries usually at short range.

Another variety of gunshot injuries in civil practice is shotgun (ordinary fowlingpiece) wounds. These are unique in many respects.

I purpose in this paper to study the nature and character of ordinary cheap pistol wounds and shotgun wounds produced at very short range — wounds produced in most of the cases by a discharge of the piece almost in contact with the wounded part. This study is based upon 56 cases which I have seen and treated in the last few years.

* Read before the American Surgical Association, Chicago, May 31, June 2, 1899.

PISTOL BULLET WOUNDS.

Shock. The first effect of these wounds, even if they are not very serious, is usually marked psychical shock. As a rule the wounded person falls if the wound be anywhere in the head or trunk; he is found to be very weak, and to manifest the usual signs and symptoms of shock, namely, pallor, weak, slow pulse, dilated pupils, slow, sighing respirations, and cool, moist surface.

Hemorrhage. This is rarely profuse unless a cavity is injured. As a rule, little blood is seen externally.

Character of Wound. The wound of entrance is usually small, round, "punched out" in appearance, and is surrounded by a markedly discolored, frequently dark brown or black, ring of skin, which I presume is produced by the carbonized heated bullet; frequently, in bare parts, the wound is surrounded by an area of powdermarks, that is, grains of black powder driven into the skin. The subcutaneous connective tissue show a much larger wound than the skin, and the muscles show a wound larger than the skin wound and smaller than the connective tissue wound.

The course of the bullet is rarely true. I mean by this, that a pistol bullet below a 38 caliber is very easily deflected and rarely pursues a straight course through the tissues, even when fired point blank. Unless the skull or facial bones be implicated, the bullet is usually arrested or split and deflected by striking a bone. The long bones are rarely shattered by small caliber leaden bullets from ordinary cheap revolvers. The penetrating power of these bullets is usually slight. Out of eight cases of wounds of the thorax, in four only did the bullet enter the thorax; the abdominal cavity is usually penetrated, however, when the aim is point blank. The large vessels have so generally escaped in cases of pistolshot wounds I have seen, even when apparently in line, that I am persuaded the sheath and the elasticity of the vessels themselves deflect the missiles.

Effect Upon the Viscera or the Contents of Cavities.

Wounds of the Cranium. I have had but one case in this series of penetrating wounds of the cranial cavity. This was a wound through the parietal bone of the right side about 4 c. m. above and in a vertical line with the mastoid process. This wound presented the frequently described and well-known peculiarities of ordinary gunshot wounds of the cranium, namely, small entrance wound,

almost round, splintered internal table, with spicules of bone driven into the cortex, large irregular laceration of the dura, and wide area of destruction of cerebral tissue; considerable hemorrhage and escape of cerebral matter.

Wounds of the Thoracic Cavity. Unless the wound is into the middle mediastinum the effect is not necessarily very serious. Of eight gunshot wounds of the thorax I have seen but two cases of serious hemorrhage into the cavity of the chest. As Dr. Matas has shown in a recent study of "Surgical Treatment of Perforating and Bleeding Wounds of the Chest" (*Jour. Am. Med. Assn.*, April 1, 1899, p. 687), wounds of the internal mammary arteries and the intercostal vessels may cause fatal bleeding. Wounds of or near the root of the lung are usually fatal. It was formerly considered that a pistol bullet wound of the chest was necessarily fatal. Besides a few other cases on record, I think the history of the case following will prove that this is not always true.

A. S., a Pennsylvanian, æt. 29 years, a spare, wiry man, about two hours before his admission into St. Luke's Hospital shot himself with suicidal intent in the left chest, using a 32 caliber, cheap revolver. Immediately after the shooting the man is said to have fallen over and was unconscious for a short time. When admitted soon after the infliction of the wound the man was very pale, respiration 40 per minute and slightly jerky in character, pupils somewhat dilated, pulse 108, weak but regular. There had been very little external hemorrhage. Examination showed a small, blackened bullet wound $2\frac{1}{2}$ c. m. above, 6 m. within the left nipple, and 6 c. m. to the left of external border of the sternum on the fourth costal cartilage. Great tenderness about the wounded area and over the epigastrium. Heart sounds very weak but regular and distinct. The respiratory sounds on the left side were weak, expansion lessened, few moist rales in the axillary region; percussion note showed increased resonance; slight cough and bloody sputum. About ten minutes after he arrived in the hospital emphysema and some swelling were noted about the wound. Examination of the back showed a small, oval, hard mass, $2\frac{1}{2}$ c. m. below and $1\frac{1}{2}$ c. m. inside of the angle of the scapula, on a level with the interspace between eighth and ninth dorsal spinous processes and $3\frac{1}{2}$ c. m. to the left of the spinal column. This was the bullet. Under careful aseptic precautions probing, enough to demonstrate the fact that the bullet had actually entered the thoracic cavity, was done. Then after careful cleansing and disinfection of the wound it was plugged with iodoform gauze, dressed, chest strapped and bandaged, and the patient put to bed. Sufficient morphia was used to obtain the strictest quiet, and he was carefully watched to see that he made absolutely no exertion.

A consideration of this case after the careful examination I gave it greatly puzzled me. It was very clear that the bullet had entered the chest directly over the position of the right ventricle; that it was not deflected and went around the chest walls was clear, as the lungs were undoubtedly punctured. The patient continued to expectorate blood until the 18th, and the physical signs indicated an indurated area of lung later on. The heart beat and its area was mapped out carefully, and all the physical signs

indicated that the heart was directly in the track of the bullet, and there certainly was no transposition of the organ to the right side. On the other hand, there was no appreciable hemorrhage into the pericardium and only little hemorrhage into the pleural cavity. The heart action was weak and rather rapid, but the sound was clear and without bruit, and the man's general condition was not exceedingly bad when he entered the hospital. He improved steadily for twelve days, and no untoward symptoms developed. There were, on the 19th, signs of circumscribed consolidation of the lung in the anterior axillary region, and he had developed a slight but not very frequent cough. On the 28th the man's general condition was very good in every way; his respiration was nearly at a normal rate, heart sounds were clear, the heart beats were felt in the normal position, temperature normal; in short, he was considered convalescent and past danger.

I concluded, by some curious accident, the heart had escaped injury. He wished to have the bullet, which still remained just under the skin in the dorsal region, removed. On this day he was brought to the operation room on a rolling stretcher, where, I think, I had been doing some other operations. He was lifted to the table and under Sleich's local anesthesia I removed the bullet. He did not seem particularly excited, he had made no exertion, he had no pain from the little incision, and yet very soon after he was returned to the ward he became restless and anxious and complained of severe pain in the epigastrium. His restlessness and anxiety increased, and morphia had to be given to relieve his pain. Gradually his pulse rate ran up, he became cyanosed, breathed with difficulty, and felt or looked as if he would die. I saw him about 11 p. m. of this day again. I found his pulse almost imperceptible at the wrist, I could feel no heart beat at all, he was in a clammy sweat, required to be propped up in bed, and had epigastric pain. He seemed almost moribund. Strychnia and morphia were given in generous doses, and after he quieted down the left chest was found perfectly flat on percussion, there were no breath sounds anteriorly at all, and no heart beats could be felt. The next day, and for several days, he had slight fever (100° – 101° F.); his pulse remained weak and respirations rapid for a number of days, and the epigastric pain was almost constant for about forty-eight hours. The second day after the attack the heart could be faintly heard to the right of the sternum and high up near the third rib. No impulse could be felt. As soon as practicable after the outbreak the chest was explored posteriorly, as well as anteriorly. It was found that respiratory sounds could be heard posteriorly, but bronchial in character; there was decided dullness but nothing like the quality of the sound on the anterior surface of the chest. After the third day the man begun to improve steadily. The chest dullness and the weak heart sounds continued for about three weeks, however. July 19th it was noted: "Percussion gives normal note above the third rib; somewhat improved below; patient feels better." He improved slowly, and was discharged August 4th, seven weeks and one day after entering the hospital.

At this time the following physical signs were noted: There was dullness on the whole left chest anteriorly, from the subclavicular region downward; axillary region dull; posteriorly dullness from spine of scapula downward. Auscultation—Bronchovesical breathing over whole chest except the regions above third ribs, where the breathing was vesicular. Palpation showed very weak heart impulse, felt most distinctly in the epigastric region. No pulsation could be felt in the normal cardiac region. The heart sounds were heard most distinctly $2\frac{1}{2}$ c. m. to the right of the ensiform cartilage in the epigastric region, thence it could be heard upwards along the right border of the

sternum as far as the fourth costal cartilage. Area of cardiac dullness extends obliquely from left to right from above downward. It begins on a vertical line $1\frac{1}{2}$ c. m. to the left of the left nipple, and extends to the right 6 c. m. beyond the sternum. Above it runs into the dullness of the lung and cannot be accurately mapped out, but it extends downward 6 c. m. below and 6 c. m. to right of ensiform cartilage. The dull cardiac area measures about $22\frac{1}{2}$ c. m. by about 15 c. m. The man was still weak and pale; pressure on the epigastrium caused pain. There had undoubtedly been a severe hemorrhage the night after the removal of the bullet, twelve days after the wound. There was no bloody expectoration nor any other evidence of purely pulmonary hemorrhage. One must conclude, it seems to me, that the hemorrhage was most probably from the heart itself. The hemorrhage, at first into the pericardium, had finally burst through this sac, doubtless through the rent made by the bullet, and so escaped into the pleural cavity. A skiagraph taken after the hemorrhage showed what seemed to be the heart surrounded by clotted blood and the pleural cavity nearly full of the same.

As a rule, however, pistol bullet wounds of the heart cause considerable laceration of the organ, and death follows. I have seen but two cases of pistol bullet wounds of the middle mediastinum, and both died.

One case was seen in consultation fourteen days after the wound was made. The bullet was 38 caliber, had entered obliquely from the right near the upper border of the third rib near its cartilaginous junction, and had ranged inward and a little upward. The right pleural cavity was full of blood, and the right lung had been compressed so that an area of about 8 c. m. only in the upper inner corner of the thorax was resonant. When seen the man was very weak, the left lung was already edematous, and respiration was rapid, short, and difficult. I aspirated the right chest and withdrew about 800 c. c. of fluid blood. This relieved the man somewhat. It was proposed to incise, wash out and drain the right chest, if the man should become strong enough, but he died shortly after I saw him.

The other case was almost dead from hemorrhage when seen soon after the wound. He died without any operative attempt to empty his chest.

It would seem therefore that the wounding of large vessels in cavities by low velocities and small leaden bullets is just as bad or worse than by steel-coated, high velocity bullets.

Two cases of through and through puncture of the lung, not near the roots of the organ, recovered rapidly; there was only a little bloody expectoration for a few days, no appreciable intrapleural hemorrhage and very little cough.

Penetrating Pistol Bullet Wounds of the Abdomen.

As Bull, Senn, Nancrede, Oliver and others have made careful studies of these wounds, and my observations have not added anything material except in one particular, I will only discuss this one point, namely, the great laceration and almost certain fatality of low velocities on solid viscera and large mesenteric blood vessels.

A very interesting case of 32 caliber wound which had entrance in the upper left hypochondriac region and which passed through the diaphragm, both posterior and anterior walls of the stomach, and through the mesocolon, and finally lodged in the head of the pancreas, gave an opportunity to study these effects. A laparotomy for exploration several hours after the injury showed, though the puncture in the anterior wall of the stomach was much larger than the bullet itself, and decidedly larger than the wound of entrance in the posterior wall, there had been no escape of the contents of the stomach. The wound in the mesocolon was a large, ragged one, at least three times as large as the bullet itself, and the pancreas was lacerated to even a greater extent. The abdomen was full of fluid and clotted blood. The man died of hemorrhage which could not be controlled by packing and rapid suturing.

Pistol Bullet Wounds of the Extremities.

Except in one case I have not found these wounds serious, and this was the only case in which a large vessel of the extremities was injured by a bullet. It was a case of injury to (laceration of) the popliteal space and posterior tibial vessels. This required ligation of the vessels at the point of injury in the popliteal space. The limb was saved, but edema persisted.

The bullets rarely escape from the tissues except when the hand or foot are the parts involved. A very recent case of attempted suicide exhibited the weak force of the ordinary small pistol very strikingly. A muscular young man used his left hand and discharged a pistol with the muzzle almost in contact with his clothing into his right pectoral region. The ball entered the walls of the chest on the outer part of the pectoralis major muscle and ranged obliquely outward and upward. It passed through a part of the deltoid muscle, struck the head of the humerus internal to the bicipital groove, tore off the fascia and periosteum, and without seriously injuring the bone, was deflected upward and lodged near the acromion process of the scapula.

Examination of the bullets in situ before their removal shows that they rarely preserve their point forward direction; they are nearly all more or less lateralized, and I think to this fact is largely due the severe lacerations of the deeper tissues produced by them. Even when the bullets have not struck any bone they are nevertheless considerably distorted.

Very frequently with the bullet, at its point of arrest, are found shreds of clothing which it has taken with it through the tissues. As a rule these shreds are taken the whole course of the missile through the tissues, and are found about the bullet or just behind it. I cannot recall a single case where the shreds were found in front of the bullet.

Treatment of Pistol Bullet Wounds.

Hemorrhage from the external wound may usually be controlled by plugging with iodoform gauze and firm strapping or bandaging. Wounds of deep vessels demand incision and ligation. Dr. Matas has recently shown the importance of this when the internal mammary or intercostal vessels are lacerated.

I have learned to regard the probe as the most dangerous factor in gunshot wounds after the immediate survival of the patient is assured. As a routine practice, probing gunshot wounds cannot be too strongly condemned. I cannot recall a single case of supuration after a pistol bullet wound when the probe was not used. Furthermore, I have convinced myself and have frequently demonstrated that it is almost impossible to accurately follow the course of a small bullet through the soft tissues with a probe. As a means of locating a bullet the probe is utterly misleading, as it will readily follow along the planes of connective tissue and muscles in directions quite different from the true course of the bullet. When ever practicable the X ray determination is the only proper method of locating a bullet. This method is sometimes difficult, and may prove misleading also, as a case I had sometime ago proved.

About two months after receiving the wound a lad was brought to me with an abscess involving the whole anterior surface of the thigh, and the history that he had accidentally shot himself with a pistol in the upper anterior part of the thigh. He had been probed, cut, and poulticed after the most approved 1862 style of treatment, but the bullet could not be located, and the large abscess and persistent suppuration had undermined his strength and constitution. He was in a low, septicemic condition when I saw him first. Careful fluoroscopic examination seemed to clearly locate the bullet at a certain point inside the deep muscles of the anterior thigh. This region was incised and explored with the result that a balled-up shred of his trousers, which was covered by blood and pus, was found at the locality marked, but the bullet was found several inches further down.

Unless the bullet has entered the abdominal cavity and below the level of the umbilicus, I believe, unless the condition of the patient clearly indicates that some effort should be made to remove

it, no attempt to remove the bullet soon after the injury should be made. Later on, if it be superficial, or if it can be demonstrated that it is doing harm, then it may be removed, if it can be clearly located by X rays.

One superficial feature of pistol bullet wounds I have found almost constantly—and that is a destruction, I think it is by burning, of a rim of the skin immediately about the entrance wound. This will surely necrose. I think this rim should as a rule be excised, and if the course of the bullet is very oblique and superficial, a linear incision should be made through the skin for a short distance, in order to assure proper drainage. Let alone, the undermined skin will almost surely act as an occlusion valve and prevent proper drainage of serum and blood. The wound, and the skin for some distance about it, should be most carefully cleaned and disinfected, then the wound should be plugged with 10 per cent. iodoform gauze and an aseptic dressing applied. After this perfect rest, if possible, of the wounded part should be obtained. Subsequent treatment should be carried out on general principles.

GUNSHOT WOUNDS

Produced by a Charge of Small Shot at Short Range.

The wounds produced by small shot differ most widely according to the range. At present I purpose to discuss the effect of these missiles only at very short range. The wounds thus produced are very formidable injuries and have some peculiarities which do not belong to any other gunshot wounds.

I have had the fortune in a comparatively short time to treat small shot wounds of the face, axilla, shoulder, lumbar region, abdomen, thigh and foot. These wounds have all presented the same general character: 1, a comparatively small, round wound of entrance; 2, extensive laceration of the muscles and deep tissues; 3, violent hemorrhage; 4, pollution of the wound by shreds of clothing and by the wads which are used in loading.

1. *Wound of entrance.* This is round, and as clean cut as if it were produced by a solid ball; indeed it may be said to have been produced by a solid missile, as it is made by the wad or wads used to hold down the shot in the modern loading of shotguns. There are usually very few powdermarks, but if the muzzle of the gun be very close when discharged the skin surrounding the wound of

entrance will be excoriated (burned) superficially. This rarely causes death of the whole skin, however—only severe blistering.

2. *Extensive laceration of the deep tissues.* Within a few inches from the muzzle of the gun a charge of small shot begins to spread out in a sort of conoidal form, the wad apparently occupying the center of the base of the cone. The effect is an explosive one; the tissues are not only mechanically torn by the numerous individual diverging pellets, but are burst asunder by a rending force similar to a gaseous explosion. The combined effect is tremendous. In two cases—one of the thigh, when the wad and most of the pellets escaped through a wound of exit, and the other of the lumbar region, in which the whole charge was arrested at the brim of the pelvis—this effect was most marked. The wound of entrance would barely admit one's thumb, but three inches away a cavity was torn big enough to almost receive one's fist. The penetrating force of a charge of small shot is much greater than that of an ordinary pistol, and the charge is not easily deflected. Thus in a wound of the shoulder, when the charge entered in the outer pectoral region, it went straight to and into the head of the humerus, crushing it utterly. The wad was lodged deep in the cancellous tissue of the bone quite as far as the shot were.

3. *Hemorrhage.* The sheaths of the vessels do not deflect the pellets; they go straight through the vessels and act very much like little punches in cutting out bits of the coats, thus lacerating the vessels in such a way that the hemorrhage is very free and not apt to stop spontaneously. The large number of the pellets make shreds of the vessels directly in their course; this, together with the large destruction of the surrounding tissue, make conditions for uninterrupted bleeding, and furnish one of the greatest primary dangers of these wounds.

4. *Pollution of the wound by shreds of clothing and the wad.* This is a constant result. In every case I have found shreds of clothing deep down in the tissues; they are deposited behind the wad and most of the charge of shot, as a rule.

The depth of penetration and effect of the wad has always been a source of wonder to me. As I said a little while ago, in a case in which the head of the humerus was shattered, I found the wad almost intact deep within the cancellous tissue of the bone; and in every case in which the charge did not escape, the wad was found

well up in the front rank of the farthest advanced pellets and occupying a space about the middle of the spreading charge. Passage through the soft tissues scarcely even bends the wad, and bones affect its symmetry very little. Besides the lacerating effect of the wad, another and very important result of its entrance into the tissues is *infection*. Wounds of the kind under discussion are *always* infected wounds, and will almost surely suppurate. This fact makes them *sui generis* and makes their treatment differ from that of other gunshot wounds—as one of the primary indications must be early, immediate if possible, removal of the wad, and incidentally the charge of shot. After this, careful and thorough drainage must be obtained.

Small shot wounds at very short range are exceedingly dangerous injuries. Hemorrhage is the primary danger. Of 10 cases I have seen and treated, 2 died, both after very severe hemorrhage. While it is true that these injuries must almost of necessity prove fatal when one of the principal cavities of the trunk or the cranium is the part affected, the following case will show that some patients may be snatched from the jaws of death if seen in time and prompt measures be taken to stop hemorrhage and lacerated viscera be removed. This was a case of small shot wound of the abdominal cavity, with laceration of spleen, mesocolon, kidney, and probably the stomach also.

A. B., æt. 45 years, born in Pennsylvania, miller by trade. Admitted into St. Luke's Hospital April 6, 1897. A short time before admission the man had attempted to commit suicide by firing a charge of small shot into his abdominal cavity. Just how he managed it it is difficult to understand, but the charge entered the left hypochondriac region over the eighth costal cartilage 8 c. m. from the median line; it shattered the ninth as well as the eighth cartilage and entered the abdominal cavity. Examination showed the wound of entrance to be a beveled, oval opening about $1\frac{1}{2}$ c. m. in diameter. It was surrounded by a reddened zone of blistered skin. Posteriorly, just above the crest of the ilium and immediately anterior to the quadratus lumborum muscle, was a large crepitating swelling with a puncture of the skin at one place about 3 m. m. in diameter. Through this small puncture blood was flowing freely. When the ambulance reached the man he was found in a puddle of blood and his clothing was saturated with blood. He had to come about a mile to reach the hospital. When he arrived he was almost moribund, was very pale, respiration 40 per minute, and radial pulse was scarcely perceptible. He was evidently bleeding to death. So, rapidly cleansing the abdomen, lower chest and lumbar region, he was chloroformed and an incision made into the abdomen below and parallel with and about a finger's breadth beneath the border of the ribs. The abdomen was full of fluid and clotted blood, which seemed to be pouring out in a steady stream from the left lumbar region. A

rapid examination showed the charge had gone downward, backward and outward. It had deeply furrowed the spleen in a number of lines, had made a large rent in the mesocolon, had missed the intestine itself and gone through the left kidney, and had torn it into shreds from the middle downward. Large quantities of gauze were stuffed into the lumbar region, and while an assistant pressed it well down I made a free opening in the lumbar region from the crest of the ilium upward over the swelling, which I knew marked the location of the charge. I turned out the wad, shreds of clothing and the charge of No. 5 shot, and rapidly introduced my hand down to the kidney, grasped the pedicle, raised the lacerated organ upward and ligated the pedicle *en masse* through the abdominal opening. The double opening gave great facility in the manipulation required for ligating and detaching the kidney. The spleen and mesocolon were also bleeding freely. The man's condition permitted only packing iodoform gauze strips about the spleen and into the laceration of the mesocolon; the ends of these strips were brought out of the lumbar wound. A rapid examination of the stomach failed to discover any puncture of this viscus, and as it was empty at the time I thought it had escaped. Persistent vomiting of dark brown, grumous matter for several days after the operation seems to show that it *was* probably injured. The abdominal cavity was thoroughly flushed with hot saline solution and the abdominal incision closed; the lumbar incision was left with a large opening through which the iodoform packing projected. The wound of entrance was also plugged with iodoform gauze, and the usual dressing applied. The man rallied slowly under large doses of strychnia, rectal saline infusions, etc. For three days the patient vomited quantities of dark matter, which was evidently blood and mucus. He was fed by the rectum, and nothing allowed by the stomach. By the 10th (in four days) the vomiting ceased and did not recur. The lumbar wound suppurated actively, but notwithstanding this the patient made almost an afebrile recovery and without any complication. He was discharged on May 31st, after fifty-six days in the hospital. There was a narrow sinus still remaining in the lumbar region, which led down to the stump of the pedicle of the kidney. This healed very soon, and the patient seemed as strong and well as before the injury.

The Treatment of Gunshot Wounds at Close Range

Consists in three special indications: 1. Stop hemorrhage. 2. Remove the shot, the wad and shreds of clothing from the tissues. 3. Provide for careful and adequate drainage.

1. Hemorrhage is always severe, as I said, and even in regions not excessively vascular it is necessary to attend very promptly to hemostasis. A little while ago a strong, plethoric girl was shot through the anterior part of the thigh. No large vessel was injured and yet when she reached the hospital a few hours later she was almost moribund from acute anemia. It required most active and persistent use of saline infusions and strychnia to resuscitate her. Packing with gauze and a firm bandage controlled the hemorrhage completely. The wound was tremendous where the charge made its exit on the anterior surface a little above the femoral vessels.

2. As I said, also, the wad and shreds of clothing will always be found with the shot in the tissues when the charge has not escaped through the skin. Curiously enough I have never found but one wad, or at least only those used in retaining the shot in the cartridge or gun barrel (sometimes two are used). The ones over the powder are probably consumed or broken into pieces by the explosion. These wads are always sources of infection, as are also the shreds of clothing. Deep suppuration will result from their presence in the tissues and will be disastrous unless they be removed.

3. As the wounds are always infected, proper drainage must be provided for ridding the tissues of the products of local sepsis. By this means and the careful and frequent use of antiseptics, general infection may be avoided.

List of Gunshot Wounds Treated.

1. PISTOL WOUNDS.		<i>Cured</i>	<i>Died</i>
Wounds of abdomen, penetrating, and wounds of viscus			2
Wounds of abdomen and hand, no wound of viscus.....	1		
Wounds of arm	2		
Wounds of arm and thorax.....	1		
Wounds of cranium, penetrating.....			1
Wounds of face	1		
Wounds of foot.....	5		
Wounds of forearm	1		
Wounds of gluteal region.....	1		
Wounds of gluteal region, of rectum, urethra and inguinal region	1		
Wounds of hand.....	4		
Wounds of inguinal region	1		
Wounds of leg	4		
Wounds of leg and thigh.....	1		
Wounds of neck (posterior part)	1		
Wounds of popliteal space and posterior tibial vessels	1		
Wounds of shoulder	3		
Wounds of thigh.....	5		1
Wounds of thigh and forearm	1		
Wounds of thorax, non-penetrating	3		
Wounds of thorax, non-penetrating, and thigh.....	1		
Wounds of thorax, penetrating.....	2		2
Total.....	40		6
2. SHOTGUN WOUNDS.		<i>Cured</i>	<i>Died</i>
Wounds of abdomen, penetrating, and wounds of viscus.....	1		
Wounds of axilla, penetrating			1
Wounds of elbow.....	1		
Wounds of face			1
Wounds of foot.....	1		
Wounds of lumbar region	2		
Wounds of shoulder	2		
Wounds of thigh	1		
Total.....	8		2

ENURESIS NOCTURNA IN THE FEMALE.*

BY GUSTAV KOLISCHER, M.D.

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Enuresis nocturna usually appears in the manner that the bladder is suddenly emptied in one act and without the consciousness of the individual, this occurring in the first hours of sleep or later, and, in rare cases, even several times during the night. This form of enuresis is a very distressing disease, from the fact that the bed of the patient and its surroundings become offensive from the odor of the decomposing urine, in spite of scrupulous cleanliness, and in spite of all precautions.

We distinguish two distinct forms of enuresis nocturna, one of which is caused by distinct anatomic changes in the urinary apparatus, and another in which such anatomic changes cannot be found. The latter form consequently depends on a nervous or tropho-neurotic cause. The anatomic conditions which can produce an enuresis nocturna are the following: Conglutination of the glans clitoritis with its prepuce; coalescence between the urethra and cords drawing to the hymen; ectropium of the mucous membrane of the external urethral orifice. Furthermore, I have observed in obstinate cases of enuresis, that in the cystoscopic view the internal urethral orifice was not limited by the normal, sharp, red margin, but that there were visible red-colored, tongue-shaped proliferations of the urethral epithelium into the trigonum. As a uniting link between this group and the nervous group of enuresis, we have those forms in which pathologic changes of other parts of the body have some relation to enuresis. One notices enuresis in individuals who, by hypertrophy of the conchæ, or by adenoid vegetations in the pharynx, are compelled to breathe through the mouth.

The therapy of all these forms must be directed against the above-mentioned pathologic changes in the way of loosening the clitoris from its prepuce, severing of the hymenal cords, thermocauterization of the ectropionated hyperesthetic urethral mucous

* Read before the Chicago Medical Society, May 24, 1899.

membrane, or the treatment of remote causes, such as adenoids. If invasion of the urethral epithelium into the bladder causes the enuresis, these invasions are to be removed by the galvano-cautery introduced through the operation cystoscope.

General nervous diseases may also produce enuresis, as chorea minor, where, for instance, the administration of quinin influences the enuresis very favorably. In order to explain those forms of enuresis in which pathologic changes are not to be found the most manifold theories have been propounded. For all these cases I prefer the explanation first given by Mendelssohn. Mendelssohn says that the so-called nervous form of enuresis nocturna is nothing else than an expression of the insufficient function of the sphincter, normal in its anatomic structure, but not yet properly developed physiologically, or where the function of the sphincter was impaired in the course of its normal development by some intercurrent morbid condition. When awake the children are able, if they notice a desire to urinate, to support the involuntary closing apparatus of the bladder by the accessory sphincter muscles. If they are asleep this conscious aid is lost. The impulse for micturition starts reflexly the action of the detrusor, and as the involuntary sphincter is not yet sufficiently strong to resist such reflex contraction of the bladder, a sudden discharge of urine occurs. To this is also added, that children who usually urinate very frequently during the daytime have nearly as many hours of sleep as time for being awake. Other favoring conditions may also increase the tendency to enuresis, such as abnormal irritability of the urinary apparatus from lithemic diathesis, or a uric acid diathesis, and lack of energy of the child's constitution resulting from scrofulosis, rachitis, and anemia.

For therapeutic purposes these different groups of enuresis can be divided into two classes: The one class contains those cases in which the frequent micturition of earliest life becomes permanent. In other words, in such cases a perfect retaining contraction of the sphincter during sleep never developed. The other class is formed by those cases in which enuresis becomes established in advanced childhood after the function of the sphincter had been normal for years. The first class, as a rule, is based on a so-called neurotic disposition, and sometimes disappears at the time of puberty. The second class consists of the cases which are usually based on path-

ologic changes and also outlast puberty if the primary causes are not removed.

In regard to the therapy, it is evident that we must first remove the exciting nervous disposition or disease, and that we must improve the nutrition of the exhausted individuals. The majority of the drugs that have a specific action on enuresis nocturna, as claimed, are nothing else than roborants and tonics, and consequently they often produce a cure. For the purpose of reducing the supposed excessive energy of the detrusor, belladonna, atropin, and similar drugs were recommended. Good results have also been ascribed to these remedies, but as there are cases that are cured in the course of time by the invigoration of the individual by age and so on, I rather ascribe these cures to such changes in the individual than to any virtues of these remedies, as I have personally never seen them to be of any value.

The real question is how to deal with the obstinate cases. The modern treatment is to place the patient in a position of elevated hips, that is, a moderate Trendelenburg position during the night. We assume that in this position the urine accumulating in the bladder does not reach by its level the internal urethral orifice as soon as it does in the ordinary position, consequently as this contact is supposed to produce a stimulating impulse for micturition the act itself is postponed. I do not believe that this theory is correct. I prefer to believe, as Guyon and his school have pointed out, that the impulse for urination is chiefly produced by the distention of the bladder. It is, then, quite indifferent where the surface level of the urine is. On the other hand, it is often very difficult to keep the patients in this Trendelenburg position while they are asleep. They usually cower down in spite of the elevation of the foot end of the bed, so that the whole procedure is frustrated. In spite of numerous attempts I have not been able to produce convincing results by this method. It is also recommended by a large number of authors to reinforce or to strengthen the sphincter by electricity. Two methods are in use for this purpose. In one a rectal electrode is introduced into the rectum, and a plate electrode is applied over the sacrum. In the other method one electrode lies in the urethra and is connected with the negative pole, while the other pole is placed on the symphysis. The faradic current is used in the first method. I could not achieve any spec-

ial benefit from the first method, while the second method I think is based more on theory than on practical experience, since not one of the patients on whom I tried this procedure of galvanization of the urethra was able to endure it for any length of time, notwithstanding that a minimum of current was used. But pseudo-cures produced by this method I have seen quite frequently. The patients do not urinate in bed for some time, but after a fortnight or so the enuresis nocturna would return. The explanation in these cases is, that the urethral mucous membrane was injured, even cauterized by the galvanic treatment. This I have seen by endoscope. I explain these pseudo-cures by the similar occurrence in male patients suffering from enuresis nocturna who acquire an acute gonorrhea. In such cases we frequently observe a discontinuance of the enuresis during the acute stage on account of the excessive sensibility to urination awakening the patient.

The only method that gives regular and permanent satisfactory results is the elastic dilatation of the urethra, first suggested by Saenger. I perform this treatment in this way: A short, straight urethral sound is introduced into the urethra, so that the end of the sound touches the trigonum; then the sound is pressed in different directions, so as to dilate the urethra downward to the left and to the right. It is of importance that each dilatation be made very thoroughly, and even forcibly, but each act of distention should be made only for a few seconds. On account of the deep introduction of the sound the posterior urethra is also influenced by the interrupted dilatations. This treatment is at first made daily; later on, every second and third day. It may be likened to a resistance gymnastic exercise for the sphincter muscle by which this muscle is rapidly strengthened. A beneficial effect is noticed after a few sittings. This treatment must, of course, be combined with such other measures as the individual case may require. The patient is not to drink for several hours before retiring, and the bladder is to be emptied just before going to bed. A uric acid diathesis indicates the use of lithium preparations; habitual constipation and parasites in the rectum may produce congestion in the pelvis and favor enuresis, and hence such causes must be removed. Masturbation, so often accused as a cause for enuresis, is, in most cases, a consequence rather than a cause of the same conditions that produce the enuresis, such as prolapsus of the urethra, parasites, etc.

A CLINICAL STUDY OF CHOREA.*

BY EDWIN WILLIAMS, M.D.

MEMPHIS.

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Chorea, or St. Vitus' dance, is a functional nervous disorder, chiefly affecting children, characterized by irregular, involuntary contraction of the muscles, a variable amount of psychical disturbance, and a remarkable liability to acute endocarditis. It occurs usually between the ages of seven and fourteen, and children in all grades of society are susceptible to it, although it is more common among the lower classes. Chorea is rare among the negroes, though cases are occasionally seen, and it is extremely rare among the red Indians.

As a general thing, there are more cases of chorea developed during the winter than at other seasons of the year. This seems to depend upon the lowness of the mean relative humidity and barometric pressure during the winter season.

About twenty-one per cent. of all choreic cases give a rheumatic history, either in their parents, or themselves prior to the disease.

Chorea follows an attack of scarlet fever in children in about twenty-five per cent. of all cases.

Chorea may occur during pregnancy—most often during the first five months of the first confinement. It is usually severe, and maniacal symptoms may develop. As a general thing in these cases the production of an abortion will effect a cure.

Forcing children at school is a most important factor in producing the disease, especially in those children who are bright, active-minded and anxious to take a high stand.

Ocular defects lie at the bottom of some cases of chorea, as I have had occasion to observe.

A good many writers have claimed recently that chorea is one of the manifestations of the so-called stigmata of degeneracy; and bright, neurotic children, suffering from this disease, often give a history of pavor nocturnus, enuresis, infantile convulsions, febrile

* This paper was awarded the Memphis Lancet prize of \$25 for the best paper presented to the Memphis Medical Society between October, 1898, and June, 1899.

delirium, impressionability and mental precocity. It is not rare to find that the mother of a choreic child has had the disease.

As regards the pathology of this disease little can be said. There are no constant lesions found in the nervous system. Embolism of the smaller cerebral vessels is often found, as might be expected in a disease in which endocarditis is so frequently associated.

The most generally accepted view of the causation of this disease is, that it is a functional brain disorder affecting the nerve centers controlling the motor apparatus, an instability of the nerve cells brought about by anemia, hyperemia, by psychical influences, or by centric or peripheric irritation. The predominance of this disease in females, and its onset at a time when the education of the brain is rapidly developing, are facts which favor the view that chorea is an expression of the functional instability of the nerve centers. Very lately some observers have endeavored to prove that chorea is microbic in origin, but so far nothing has been advanced to support this theory.

The symptoms may be divided into three classes, the mild, the severe, and the maniacal forms. In the mild cases the muscles, speech and general health are not seriously affected. In the severe cases the movements become general, and the patient may be unable to perform any of the ordinary duties of life, owing to the constant, irregular, clonic contractions of the various muscle groups. The child may not be able to articulate. Often with the onset of the severer symptoms there is a loss of power on one side or in the limb most affected. In the third form, the so-called maniacal chorea, the symptoms are all exceedingly aggravated with high fever, and death or insanity may supervene. One attack of this disease appears to bring about another. Few children have but one attack. One of the prominent symptoms is a condition of extreme muscular weakness. Chorea, while it attacks many muscles, fortunately never interferes with the muscles of the heart, bronchi, intestines or the sphincters of the rectum and bladder.

Girls are affected twice as often as boys, and the disease rarely occurs, in either sex, before the fourth year or after the twentieth year.

The prognosis of the disease is good, death being a rare occurrence.

The onset of the disease is insidious in its character. Children are at first peevish, sleep disturbed, inattentive, and on being reprimanded there is undue depression or unusual emotion. These symptoms last for days or weeks, usually, before the motor choreic features appear.

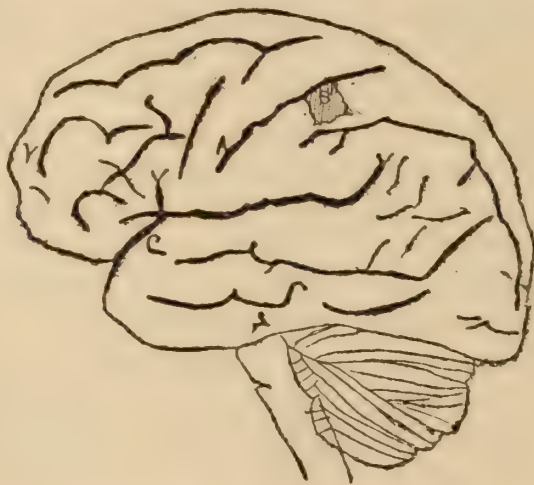
The following four cases will show some of the different causes producing the disease :

Case I. Boy, *æt.* 11, only child. History of rickets in early childhood, poor physique, slight anemic murmur at base of heart. Blood examination showed 3,600,000 red blood corpuscles to the cubic millimeter and the leukocytes diminished in amount. Began to have fits of depression about six weeks before I saw him, and a week before being brought to my notice had marked choreic movements. When I first observed him the movements were very noticeable. There were constant, irregular, clonic spasms, especially involving the muscles of the right arm and shoulder. Speech was but little affected. The gait was slightly staggering, and he showed a marked disposition to walk toward the right side. So marked was this disability that starting from the center of the side of a room about 30 feet square he brought up at the corner of the opposite and right sides of it. His mother had noticed this disability, and was in constant fear that the child would be run over. His eyes were carefully examined, and a pronounced refractive error was found. Suitable glasses were given him to wear, and he was given an iron tonic (Gude's pepto-mangan). Within three weeks the blood count showed an increase to 3,800,000 red corpuscles to the cubic millimeter, and the choreic symptoms had subsided entirely. The eyes, which before had hurt him on reading much, were now in excellent condition, and with his glasses he was able to read whenever and as much as he pleased without injury. This case was followed until the family moved out of town, eight months later. During this time there was no recurrence of the symptoms. The iron tonic was continued for four months, and the blood count at the end of that time was still 3,800,000 red cells to the cubic millimeter. The anemic murmur, however, still persisted.

Case II. Girl, *æt.* 7, mother epileptic before marriage, father a heavy drinker. This child was the youngest of three; other two died, one of cholera infantum at 2 years, one of broncho-pneumonia at 6. Her home life was very degrading. Child rapidly acquiring an appetite for beer and other alcoholic stimulants. Three weeks before I saw her she came very near being run over by a loaded beer wagon; was running across the street, slipped and fell in front of the wagon. A bystander dragged her out of harm's way almost under the hoofs of the horses. The child had a very severe fright, but soon recovered. Five days before she came to see me she developed choreic movements; symptoms first noticed at the breakfast table; spilled a cup of coffee and almost immediately afterward a glass of water. Was sent from the table and afterward whipped, as her mother expressed it, for her carelessness. When I first saw her she had severe clonic spasms, involving both arms and left leg, and a peculiar movement of the face and neck, which consisted of throwing the head to left side and raising both eyebrows. Speech and deglutition were both very much interfered with. In fact, the child did not attempt to talk. The case was diagnosed as chorea of the second degree. No ocular or heart symptoms were found. Child was put upon Fowler's solution, *m. vj t. i. d.*, and after fourth day I increased the dose by *m. j* per

day until she was taking m. xvij each day. This dosage was continued for ten days. After the tenth day the dose was again increased by m. j each day until the child was taking m. xx t. i. d. She kept this up for ten weeks, at the expiration of which her symptoms had about disappeared. During this time her mother ran away with another man, and her father was taken to a hospital, suffering from cirrhosis of the liver. She was given in charge of some charitable women, who put her in a children's home. She continued at the home to take Fowler's solution at irregular intervals and in irregular doses for about six months, and then ceased. When I last saw her, some seven months after her entrance into the home, the only choreic feature to be observed was a slight twitching of the left eyelid. During the time she was taking the arsenic no symptoms of poisoning appeared.

Case III. Girl, æt. 9, only child and very well grown for her age. Bad family history; mother died in an insane asylum of supposed puerperal mania, father died of Bright's disease. Patient is now living with a cousin, who beats her at times. Has always been an excitable child, with an uncontrollable temper. At the age of 8, while skipping rope, fell and struck her head against the stone curbing of the sidewalk. The child was taken to her home and a doctor summoned. She was unconscious for four hours. The doctor diagnosed fracture of the skull and advised removal to the hospital. The cousin refused. The little girl recovered from the fall, but six months later developed true epilepsy of the type known as petit mal. She was treated for this medicinally, with indifferent success. The convulsions came about every four days and lasted about five minutes. A month before she was brought to me she began to have fits of depression and gradually beginning incoördinated movements of the left arm. During this month she had nine attacks of epilepsy. When I first saw her the incoördinated movements were noticeable, yet not severe, and were confined exclusively to the left arm and hand. It was decided, on reviewing the case, to operate. Permission being obtained, the skull was trephined at the site of the cicatrix and a depressed fracture of the inner table found, with a spicula of bone about an inch square pressing down upon the ascending parietal lobe, between the fissure of Rolando and the post central fissure on the right hemisphere, $1\frac{1}{2}$ inches below the great longitudinal fissure. The following diagram will aid in showing the position of the bone.



A—Fissure of Rolando. B—Position of depressed bone in case III.
C—Fissure of Sylvius.

Upon removing this bone the brain tissue and dura were both found congested. The patient made an uninterrupted recovery, and from that day to the last time I saw her, a period of about eight months, never had another symptom, either of chorea or of epilepsy.

Case IV. Boy, *æt.* 5, good family history, parents in excellent health; younger of two children. The other child, a girl 9 years of age, is normal in every respect. No history of fright or traumatism; heart action normal; no rheumatic history in child or immediate family. Began two weeks before I saw him to have a few choreic movements in the right hand, and when I observed him first the movements involved the right hand, arm, shoulder and right side of head and neck. The movements were not severe. There was no interference with speech or general health. The boy was a "mouth-breather," and had been so for a year or more. His face was heavy, and he had the dull, stupid look so pathognomonic of this disease. An examination of the throat showed large adenoid growths in the posterior nares. The child was put under the influence of chloroform and the growths excised. A rather alarming hemorrhage followed, but was quickly stopped by the local application of the perchloride of iron. The child recovered nicely from the operation, and the choreic movements became less and less, until four weeks after the operation they ceased. The case was kept under observation for about five months, with no recurrence of the symptoms.

The cause of the chorea in Case I was evidently eye strain, as the diminution and subsequent increase in the blood elements was hardly great enough to account for the chorea and its ceasing. Some writers, more especially Osler, claim that eye strain plays but a small part, if any, as a causative factor in this disease. This case, at least, distinctly proves the contrary. In Case II fright is evidently the cause. No other can be assigned. Some authorities claim that fright or sudden emotion rarely produces chorea. In this case the fright was no doubt aided by the child's manner of living, her semi-starvation and her indulgence in alcoholic stimulants. As I remember her first, she was a puny, pale and feeble child, sadly unkempt as to hair and clothes. This case shows a remarkable toleration to large quantities of arsenic without symptoms of poisoning. It also shows the ability of this drug, in the form of Fowler's solution, to combat this disease as no other drug can do.

Case III presents a rather remarkable combination of two nervous disorders, both cured by one operation. I have taken pains to search through a good deal of medical literature and have so far failed to find a record of this combination existing in the same individual. The epilepsy was caused by the traumatic injury, but was the chorea caused by the epilepsy, or the preëxisting fracture? I believe the attacks of epilepsy lowered the resisting power of

the brain tissue in the centers controlling the arm and hand (which was the spot in the brain upon which the fragment of bone rested), and that these incoördinate movements were but an expression of the functional inability of these centers and an inarticulate cry for help.

Case IV is plainly a chorea caused by reflex irritation. This case was first thought to be one of habit spasm, but the absence of the inspiratory "sniff" and the fact that the arm and hand were involved in the choreic movements proved it to be a case of genuine chorea. As soon as the causes of the trouble were removed, the adenoids, the chorea gradually ceased until it died out altogether.

In closing this paper I desire to lay particular stress upon a most important point in the treatment of this disease. Study each case carefully. Find out by careful and repeated examinations, if necessary, what is the prime cause of each individual case. When that is found, treat it first. It may have been a severe fright, or it maybe eye strain, adenoids, adherent prepuce, worms, or many other things which act as irritants to the nervous system. Do not put each patient upon a routine treatment until you are sure in your mind as to the exact etiological factor. The cause found and removed, the after treatment is simple. Rest in bed, sleep, attention to the appetite and the state of the bowels, are of the first importance in the treatment. Drugs, with the exception of Fowler's solution given as in Case II, are of secondary importance. Try to teach parents that as soon as a child complains of muscular weakness without apparent cause, and is subject to fits of depression, it is their duty to give it rest and sleep even at the expense of removal from school for the time being.

Odd Fellows Building.

THE CANCER PARASITE.—Dr. Curtis, of Lille (*La Presse Medicale*, 1899, no. 20), reports totally negative results in his search for a cancer parasite. He used carcinomata of the breast and testicle. In a carefully conducted series of experiments with eighteen of such cases, he was unable to obtain any parasites that would grow on any media, and was unable to produce any contagion in other animals. The author believes that the positive results obtained by other observers are due to defective technique.—*Medical Record*.

ATYPIC MALARIA IN CHILDREN, WITH A CASE IN POINT.*

BY ROSA ENGELMANN, B.A., M.D.

CHICAGO.

Professor of Pediatrics, Post-Graduate Medical School; Instructor Pediatrics, College of Physicians and Surgeons (University of Illinois); Medical Inspector, Chicago Health Department, etc.

It is well known that malaria in children under six years of age runs such an irregular course as to render a correct diagnosis difficult. Reference to a case that misled me, as it did many of our most prominent diagnosticians, confirms this feature.

I had seen the child six months previous to my second visit for hip joint pain and lameness. Incipient tuberculosis was excluded by Dr. John Ridlon. I finally concluded that the trouble was hysterical. I have since learned of reported malarial joint swellings and pain simulating hysteria. The little girl was now suffering from progressive emaciation, anorexia, insomnia, and excessive polydipsia and polyuria. Many and repeated examinations of the urine failed to show the presence of sugar—traces of which, I believe, however, were finally found. Drs. Frank Billings, Edwards, Kuh and Quine also saw the patient—the latter recommending a blood examination. Dr. Klebs and others demonstrated the malarial plasmodium. The exhibition of intermittent small doses of quinin in six weeks reduced the amount of urine from thirty to three pints a day. Albuminuria and glycosuria are recognized complications of malaria. Jaccoud and Vallin assert that the temporary diabetes of malaria may become permanent.

The following incomplete history offers some interesting data. The persistent cough (resistent to all ordinary treatment), and pulmonary infiltration, not of tubercular origin, with low temperature, puzzled and misled me.

Margaret W., 6 years old, living in a sunshiny, well-heated flat in a healthy neighborhood, and had no previous illness except diphtheria. She was about to be operated upon for cleft palate when she was brought to me October 16 for slight cough, anorexia, anemia, restlessness, sleeplessness, pain in the left side, and slight rise of temperature. October 26, no improvement noted; lungs examined; small area of dullness, bronchial breathing, and crepitant rales confined to a small space in the left axillary region, were noted; temperature not much above 99° F.; pulse was correspondingly slow, and respiration not accelerated. October 31, condition the same. Thinking that I might have overlooked a typhoid infection (with secondary pulmonary involvement), I now made a more careful abdominal investigation. All signs and symptoms were negative

* Read before the Illinois State Medical Society, at Cairo, May 16, 1899.

except a spleen palpable two fingers' breadth below the costal arch. The Diazo urinary reaction was demonstrated, but Widal's test proved negative. Malaria finally suggested itself, and I made a blood examination and submitted it for confirmation to Dr. Robert Zeit. The plasmodium malaria was shown in the first specimen, but after the institution of the quinin treatment it disappeared, as did the primary leukocytosis that must have been an initial phagocytosis, notwithstanding Cabot's dictum to the contrary. Osler says "the leukocytes are almost invariably diminished in man in malarial fever," and again, "leukocytosis is rare." The child was put upon iron and arsenic, and quinin inunctions proving a failure, the latter in solution was finally given up to thirty grains a day. All unpleasant drug effects were wanting, and I was obliged to treat the case thus heroically and empirically, because at no time was I able to determine the cycle of the disease, either by the closest observation of the symptoms, or by the temperature record. She never sweated or was chilly; neither was there any intermission of temperature; it fluctuated after the exhibition of quinin for six weeks from 99° to 100°, and never rose above this. She rapidly gained flesh, strength and color, and the splenic tumor vanished. She took diminishing doses of quinin until December 16. After two months' treatment I pronounced her absolutely well. Up to date there has been no recurrence.

This case calls attention to the following points:

1. Unknown mode of infection.
2. Irregular and masked course of the disease.
3. Undetermined type of protozoon.
4. Evanescent leukocytosis.
5. Limited area of pulmonic consolidation, associated with peculiarly low temperature curve, pulse and respiratory ratio.

The season of the year (October) excluded a mosquito contagion. These insects are probably the temporary, rather than the permanent, host of the hematozoon. Von Limbeck believes that the life history of this parasite external to the human body is in the ground, drinking water or air. Norton contends that at present we have no proof that this organism lives in water. If water borne, other neighborhood cases should have occurred. Dr. Harley observed cases of malaria in his own family traced to the water of an artesian well, with recovery in every instance after sterilization of the drinking water. If earth borne, the same reason would obtain. Moreover, neighborhood and environment were good — free from moisture, decaying vegetables, and from tearing up the soil.

Flugge advocates an air infection. This theory has not been experimentally established, although Buchner reports malaria communicated by a bed-fellow. Gerhardt says that it can be inoculated from man to man. Schelling reports his own, an assistant's and nurse's infection from a patient attended by him. A lately

returned Cuban soldier, who lay sick with supposed typhoid fever in the flat beneath, may have been the unknown carrier of the malarial protozoon to my patient.

Holt says "the clinical forms of malarial fever in children from six to ten years old do not differ materially from the same disease in adults." The age of my patient, six years upon the border line, thus accounts for the atypic disease process. From the small size, lack of pigment, except in a few intracorpuseular bodies (and but one examination showed the organism), we concluded that the quotidian variety obtained. According to Billings, a post-febrile leukocytosis in malaria is a phagocytosis.

The form of pulmonary involvement was very perplexing. Since the malarial paroxysms were not severe, localized pulmonary congestion, such as accompanies violent attacks in adults, was excluded. The limitation of the physical signs to a small area of consolidation and unimportant symptomatology lead to the thought of a possible parasitic pulmonic invasion through sporular inspiration. The onset of the disease pointed unquestionably to respiratory involvement.

Bronchitis is recognized as an occasionally sole symptom of malaria. Müller, of Warburg, mentions cough, bloody expectoration in a great number of fever and ague patients during a severe epidemic in 1894. Other than bronchitic rales, no pathogenic signs were present in his series of cases.

Osler writes: "It was formerly believed that an especial form of pneumonia was caused by the malarial poison. This idea is now exploded by the Italian observers who have proved by bacteriological examination that, as in other forms of pneumonia, the micrococcus lanceolatus is present." Ed. Maragliano recently declared that "the pneumonia or typhoid assumption of character is due to the fact of nervous circulatory disturbances giving the appearance of a localization of the inflammatory process that really does not exist." This hypothesis seems to apply to my case, but numerous questions are not yet settled.

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CORRESPONDENCE.

ROSEDALE, MISS., June 27, 1899.

Editors Memphis Lancet:

At the earnest solicitation of my friend, Dr. H. L. Sutherland, I came down here to rusticate, and am having a delightful time of it. Drs. Sutherland and Harris and their ladies seem never to weary in their endeavors to entertain me. Dr. S.'s pretty niece has contributed more to this than she suspects. There was a swell wedding the first night, and I attended both the ceremony and the reception, although I had no apparel befitting the occasion.

I have been making a diligent but unsuccessful search for "crescents," and understand that Dr. W. A. Evans, of Chicago, had, several years ago, gone through the entire convict farm without finding them. This corroborates my contention that they do not exist in the territory contiguous to Memphis. During the past ten years I have made several thousand spreads and have never yet found them, nor has anyone else working in and about Memphis. It is to be remembered that Dr. Young, of the Marine Service, was surprised at not finding crescents, seeing that he was accustomed to find them in Baltimore and in Florida. I have one of his specimens now. They are found in Galveston, at New York, at Charleston, and elsewhere on the coast. It seems to me that they are hibernating forms, assumed to resist certain hostile influences. The fact that they are admitted to be conjugated forms (zyzygia) supports this view. (See Society Proceedings, page 86.)

Pure intermittents are now very rare in this region. Time was when the attending physician could promise a positive cure on the

first visit. Now it is very rare to find an attack to yield in three days. I found mostly tertian, one quartan, and one presumably estivo-autumnal; it was not in a good stage for differentiation. In most cases there were different stages of development represented—multiple infection. There is rarely a distinct chill, mostly a chilly sensation, followed by fever of almost any degree. The paroxysm is of indefinite length and varying severity. Many residents have merely an evening temperature during most of the summer, with malaise, languidness, diminished appetite, slightly enlarged liver and spleen, etc. Quinin does some good, but not enough to justify the continued use of it. I curtailed one such case by giving a single dose of it at the right time, determined by the microscope. Of course, the groups not affected by this dose will eventually give rise to symptoms; I timed my dose to catch the largest group. Other doses given similarly would get the other groups. The physicians here, after watching my work, fully agree that this is the only solution of the problem, and intend to equip themselves with microscopes. I have thus converted a social visit into a missionary expedition. Had I the means, I would put in the entire summer in the "Delta." Perhaps some enterprising microscope maker would furnish the "sinews of war." Actual demonstration does more good than all the lecturing.

I also saw a case of "slow fever." I demonstrated the absence of plasmodia—a rather unsatisfactory test, but I had no cultures to try the "Widal." I shall bring some of the dried blood home and try it. Fact is, that these cases never die of the attack and are not immunized by it.

One of the town belles was taken down with an attack of what will perhaps always be known as "malarial hematuria," though why malarial and why hematuria, is hard to understand. So many have named this disorder that I cannot refrain from trying my hand at it. I would name it "anti-malarial methemoglobinuria," since this expresses the condition of the urine and the effect of the disease, for there is no more effectual paralyzer of plasmodia than an attack of it. This lady had not been free from fever for months, and her complexion had been her "bete noir" for some time, but now, her physician tells me, it is perfectly clear. Certain it is that she has had neither fever nor plasmodia in her blood since the beginning of the "hematuria." The treatment consisted of calo-

mel in small and repeated doses, sodium phosphate, a few hypodermics of strychnin, atropin and nitroglycerin, *pro re nata*. Recovery was uneventful; there was no second chill. It is significant that she had had a dose of quinin and calomel twelve hours before the chill ushering in the hematuric attack. The clinical history was typical. There was a severe rigor with a temperature of 103° F. in the evening, followed by a scant discharge of "bloody" urine. There was great restlessness, anxiety, nausea, vomiting, sighing respiration, followed by jaundice on the next day. At midnight on the first day, when I first saw her, the pulse was 120 and thready, temperature 99 $\frac{4}{5}$ °, great appearance of shock, which would tempt one to give morphin, but the local physicians are mortally afraid of it where elimination is of such vital importance, and the other stimulants did answer the purpose. When I called in the afternoon of the following day to get a sample of blood, the skin was clearing up, the urine was only a pale pink and passing in fair quantities, the vomiting had stopped during the night, and she had rested well. On the fifth day she was sitting up.

The quinin therapy of hematuria is a thing of the past here. All the physicians recall with horror and would, if they could, blot out of their memory the days when quinin was used in the therapy of hematuria.

I cannot pass this subject without some reference to the question of quinin hemoglobinuria. There seems no longer any doubt that quinin can, under certain circumstances, produce hemoglobinuria. I have seen such cases and know of one at St. Joseph's Hospital that was fairly convalescent when admitted. The visiting physician ordered quinin, and in a few hours there was a rigor, followed by the passage, under great tenesmus, of some very dark, smoky urine and the aggravation of all the symptoms. I think the publication of the enclosed letter from Dr. Humphreys, of Greenwood, would be of interest in this connection. I have seen one other case in a coal-black negro, which I reported in a paper written jointly with Dr. Goltman.

I will try to get home tonight.

WM. KRAUSS.

Dr. Wm. Krauss, Memphis:

GREENWOOD, MISS., April 23, 1899.

Dear Sir—I send you by mail today a sample of urine from a little full blooded negro boy, five years old. In an extensive practice of fourteen years in the Delta this is the first case of hematuria I have seen in the negro race. This is the experience of the other doctors in this section, which makes it particularly interesting.

The child's mother says the little fellow has had chills and fever every week or two since last summer, and has had this symptom of bloody urine whenever he has taken quinin. I directed her yesterday, when she first called me, to stop the quinin; and I put him on calomel, hyposulphite of sodium and a prescription of citrate of iron and Fowler's solution of arsenic. Today the temperature is normal and the urine is clear. The conjunctivæ are intensely yellow. The family live on the south bank of a slough and drink "pump water." The other members of the family have good health.

Now the question in my mind and which interests us here is: Is this case of hematuria due to quinin or to malaria, as cases appear in white people?

Yours truly,

D. S. HUMPHREYS.

[The answer given to the above letter was, that these cases are what is known as malarial hematuria. How much the quinin has to do with their etiology is still a matter of doubt. The fact is, that it "has no place in the therapy of malarial hematuria." It is to be hoped that the benighted individuals who still persist in its use, and especially the teachers (?) of medicine who recommend its use on the absurd ground that, as it is a malarial disease, quinin must be given, will, before their therapy claims more victims, see the error of their ways.]

VAGINAL DOUCHES, ANTE-PARTUM AND POST-PARTUM.—Boston (*N. Y. Medical Journal*, June 10, 1899), after a full discussion of the subject, concludes as follows:

1. A profuse leucorrhea during the latter months of pregnancy is no indication for vaginal douching.
2. The chemical reaction of a discharge has but slight effect upon its antiseptic powers.
3. The vaginal secretions of pregnant women rarely, if ever, contain pathogenic germs except gonococci.
4. Vaginal douches favor the development of cervical gonorrhea and puerperal sepsis.
5. The vaginal secretions may contain streptococci, staphylococci, diplococci and bacilli, all of which may be non-pathogenic.
6. A discharge from the cervix may show the presence of pathogenic bacteria after all other symptoms of sepsis have disappeared.

THE MEMPHIS LANCET.

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EDITORIALS.

IS EPIDEMIC CEREBRO-SPINAL MENINGITIS A COMMUNICABLE DISEASE?

We believe it is. Not in the same sense as measles, scarlet fever and diphtheria, but mildly communicable nevertheless. We make this assertion with considerable reluctance, since we are familiar with the teachings of the time and the opinions generally held by those most competent to render such opinions. And the only excuse for putting forward our opinion—for that is all it is—is the fact that should the disease prove to be communicable, isolation, fumigation and disinfection are the prophylactic measures to be considered above all things, for we well know how little treatment can accomplish in these cases.

It is a fact, however, that cases will linger for months, suffer the most terrible torture, be worn to a mere shadow, and finally get well, in spite of the best or the worst treatment.

But have we any evidence of the contagiousness of the disease?

Hirsch, who has studied this disease as no one else has studied it, said as far back as 1886 that evidence as to the contagiousness of cerebro-spinal meningitis is increasing, and he cites numerous examples in proof of his contention. And more recently Councilman, Mallory and Wright, in a report to the State Board of Health of Massachusetts, which is a marvel of completeness of detail and painstaking research, after citing many authorities, pro and con, conclude

thus: "It is certain that the disease is an infectious disease, and is produced by a definite microörganism. This organism increases in the body of the affected individual, and in a certain number of cases may infect his surroundings, and may in a manner, which we do not know, be conveyed to the tissues of a susceptible individual and there produce the disease. Why this takes place in some cases and not in others, and the conditions under which it takes place, we do not know. The evidence on the whole is not conclusive that the disease is incapable of being transmitted from one individual to another. In the present epidemic (referring to the epidemic in Boston in 1896-97) there were but few cases in which individuals in the same house were affected. In one case a mother was attacked two days after the death of her child from the fulminating form. In two other cases there were cases in the same family, and in one case it was said that children in the same neighborhood had died of brain fever." These statements, although made by such eminent authorities, are not conclusive enough to convince the most skeptical, but that they lean toward the contagious side of the question there is no doubt. And now, when we admit that the evidence against contagion is far greater than the evidence for it, we cannot be accused of any prejudice pro or con. We are only stimulated by the desire of protecting the public against one of the most terrible diseases that affect mankind—a disease which will very often cut down our nearest and dearest in a few hours—yes, cut them down before we have even time to realize what has happened. In the city of Memphis we are enabled to report, owing to the kindness of the efficient secretary of the board of health, Dr. Haase, about eighty deaths from October, 1898, to May, 1899, and among these are several instances in favor of the contagiousness of the disease.

It can be argued, and with considerable truth, too, that what looks to us and to many others as evidence of contagion are merely coincidences that happen in the history of every disease, to say nothing of things in general, and of every day life in particular. We have candidly made admissions which throw great doubt on our contention; at the same time even the most biased will admit that the question is not by any means a settled one, that there is a doubt, a just doubt, a doubt garnered from the evidence and observations of some of the most eminent men. And since such a doubt unmistakably exists, let the public have the benefit of it; and if time

should prove that we are in error, and that the disease is not contagious, the board of health will have the satisfaction of knowing that they had taken time by the forelock in having sought by isolation, fumigation, disinfection, etc., to prevent the spread of a most terrible disease, and at least to have erred on the right side. M. G.

THE MEMPHIS MEDICAL SOCIETY PRIZE.

The Memphis Medical Society, at its July meeting, passed a resolution offering a prize of twenty-five dollars for the best paper read before the society between October 1, 1899, and June 1, 1900. No restriction is placed on the number of papers each member may present, nor is he limited in his choice of a medium or time for publication. The impromptu portions of the society's meetings have been of a high character, but the set papers have not been so creditable, and it is to be hoped that this offer will stimulate the members to present carefully prepared essays. The offer is not valid unless ten papers shall be entered in the competition.

REPORTS OF SOCIETIES.

PROCEEDINGS OF THE MEMPHIS MEDICAL SOCIETY.

Regular Meeting, July 11, 1899.

The President, Dr. B. F. Turner, in the chair.

Present were Drs. Turner, Holder, McKinney, Williams, Raymond, Alfred Moore, Stanley, Crofford, Pincus, Griswold, Oliver, Reilly, Heber Jones, Krauss, Henning, Barton, Smythe, Kane, F. A. Jones, Goltman, Black, Ellett, Rudisill, Sale and Hall.

Dr. Wm. Krauss reported a case of estivo-autumnal fever seen in his service at St. Joseph's Hospital in which he found crescents. The case being so unusual—he never having found them before—he questioned the patient as to his previous whereabouts and found that he had been working in a lumber camp about two hundred miles south of Memphis. Hence Dr. Krauss still maintains that these bodies are not found within one hundred miles of Memphis.

Dr. J. H. Reilly stated that he had always differed with Dr. Krauss on theoretical grounds and had been anxious to prove him

in the wrong, but, in a three months' service at the City Hospital he had seen a large clinic of malaria and had made blood examinations in each case without finding them.

Dr. F. S. Raymond reported *A Case of Death Following Curettage for Incomplete Abortion*.

Dr. T. J. Crofford thought death followed too soon after the operation for peritonitis to have had time to develop, and suggested that infection took place at the time of the curettage and death followed from sapremia.

Dr. M. Goltman reported *A Case of Rupture of the Urethra from Sexual Intercourse*. The patient had been married three months before her husband succeeded in having intercourse with her—the act then being accompanied by considerable pain, and followed by the passage of bloody urine. Examination revealed an intact hymen, a much distended urethra, and two lacerations on its wall; they were not deep, and the condition was by no means serious.

Dr. B. G. Henning made *A Report of Cases*. In a series of cases of intermittent malaria in hospital and private practice, he has found that single large doses of quinin given during or following a chill so saturate the blood with quinin that subsequent crops of plasmodia are killed when they develop, and no further chills occur. He gives forty grains by the mouth, or thirty grains hypodermatically.

Dr. Henning then related the case of a young man who first came to him with a pain in the right shoulder and side, and a temperature of 102°. He thought it was due to some disturbance in the liver, and as the swelling increased and the temperature rose, it was thought to be an abscess. There then developed retention of urine, and a membranous plug was found at the meatus; on removing this it proved to be a cast of the pelvis of the kidney. (The specimen was exhibited.) Its removal was followed by the discharge of a smaller cast (ureter), and then a gallon of urine, and then blood. The swelling (hydronephrosis) and temperature disappeared, and after twenty-four hours of bloody discharge (suggesting calcareous pyelitis) the urine was found full of pus. This continued, without bad general symptoms, for five days—the quantity of urine being much reduced. The patient then had a chill and began to expectorate pus. Physical examination and repeated exploring with a needle failed to show any disease of the lung or pleura. The patient went to Louisville, where a diagnosis of abscess

of the liver was made and an operation performed. The liver was found healthy, the kidney destroyed by an abscess. The patient died. The abscess apparently discharged through the lung.

Dr. Henning also presented a cast of the bronchi expectorated by an elderly patient, the subject of chronic bronchitis. This was the second such cast this patient had coughed up, and its ejection was followed by hemorrhage and death. The trouble was thought to be tubercular.

Dr. Krauss said that quinin was simply a plasmodicide, and did no good in the apyretic period of malaria. Dr. Henning's plan of giving it has been proven to be the correct one by microscopical observation, and is not new. He thinks the pus in the first case took a very circuitous route, but he has seen, post-mortem, a case in which an abscess from a necrosed rib discharged into the ascending colon.

Dr. Goltman said that Dr. Henning's method of giving quinin had been accepted as correct some time ago on microscopic findings, and he finds that five grains hypodermatically at the proper time is quite sufficient.

Dr. Heber Jones gives quinin (20-30 grains in all) right away when called to a case of intermittent malaria, regardless of the temperature. He did not understand just where the urine collected in Dr. Henning's patient with abscess of the kidney.

Dr. Reilly, in his hospital work, gives calomel and then five grains of quinin every two hours for twelve hours in intermittent malaria. None of his patients had a second chill.

Dr. A. B. Oliver often gives sixty grains, and finds that twenty-grain doses excite the patient less than small ones do.

Dr. Alfred Moore has recently used paregoric and soda instead of quinin in one case of malaria, and no subsequent chill occurred. In regard to Dr. Henning's last case, death from the second hemorrhage is rare, but he has seen it follow the first one.

Dr. Henning said that so far as the circuitous route of the pus was concerned he had seen an anal fistula open on the face. He has found ten grains of quinin at the time of the chill inefficient, and hence uses larger doses. The method he mentions is of value in that it saves so much time. In the case of hydronephrosis the urine was in the pelvis of the kidney and ureter.

Dr. F. D. Smythe reported the following cases:

Case I. A young woman had for ten days secreted about two drams of purulent urine a day, which was drawn with a catheter. On the tenth day she had a free bleeding from the genitals, resulting from a slough of the cervix, exposing and involving the uterine artery. This was clamped, and as the patient was almost exsanguinated, half a gallon of deci-normal salt solution was put in the median basilic vein. This had the effect of increasing the quantity of urine somewhat, but in two days it was again reduced, a profuse hemorrhage from the stomach occurred, and the patient died.

Case II. A typical case of typhoid fever in a young man, with high temperature and a very profuse eruption, presented on about the seventeenth day a temperature of $105\frac{3}{5}^{\circ}$. It then dropped to normal and did not again rise. This he regards as typhoid fever terminating by crisis.

Dr. F. A. Jones said this is what Hare terms abortive typhoid. Pseudo-crises occur, after which the fever returns and runs the usual course. Typhoid fever is now milder and less common than formerly.

Dr. Henning saw this patient and has seen the same thing occur in others. He regards pseudo-crises as instances of reinfection.

Dr. E. P. Sale said these cases are described, and he has seen a few, notably one with a temperature of 109° on the twenty-eighth day, followed by a drop to 96° and recovery.

Dr. Reilly thinks our cases are mixed (malaria and typhoid), and this tends to make them mild. Reports from Philadelphia and other cities do not show that typhoid fever is lessening.

Dr. Crofford asked, if reinfection occurs, how does a typhoid patient ever recover?

Dr. Henning said that the poison was rendered more potent by some imprudence of the patient.

Dr. Heber Jones does not think typhoid is changing its character, but from a careful study of the blood of many cases, thinks many continued forms of malaria are diagnosed typhoid. The blood examinations show few mixed cases. He saw one very marked one, where the Widal reaction and all the clinical symptoms of typhoid were present, and the patient had marked malarial paroxysms, and the plasmodium was found in the blood on several occasions. The patient died.

Dr. Krauss thinks we can tell these cases with certainty by the temperature chart.

Dr. Goltman asked if *Dr. Smythe's* first patient was a hemophilic.

Dr. Smythe replied that she was not.

PROGRESS OF MEDICINE.

ETIOLOGY OF ABSCESS OF THE LIVER.—*Jackson (St. Paul Medical Journal)* reports seventeen cases observed by him, which etiologically classify as follows: Accidental, two; indefinite, three; amebic dysentery, two; appendicitis, ten. In the cases classified as accidental, one was due to an extension to the liver of an empyema, and the other was the result of a circumscribed peritonitis, secondary to the rupture of an ulcer of the stomach. In the cases classified as indefinite, no causative factor was suggested by the history or course of the case, and in one of the three a post-mortem examination did not clear up the obscurity of the case. In two cases the abscess was secondary to amebic dysentery. Aside, however, from the two rare cases of amebic abscess, the chief interest centers in the ten cases in which the process arose in an acute or chronic appendicitis. A complete clinical history of each case, with post-mortem record of the fatal cases, is given in this valuable paper, which is in the direction of much needed research. Some of the characteristics summarized upon are:

1. The pulse, which is usually extremely slow. This slow pulse is warned against for reliance in the prognosis.
2. Enlargement of the liver was present in every case.
3. The spleen was generally enlarged.
4. Vomiting was a most constant symptom, being absent in only two cases.
5. Pain and tenderness are rarely present, and very insignificant when present at all.
6. Leukocytosis was present in all the cases in which a blood examination was made.
7. Jaundice was present in six cases.
8. Aspiration of liver is an unsatisfactory method of diagnosis.

9. Early and free incision is the only rational treatment.

10. The most important signs in order of their frequency are: tumor, fever, chills, leukocytosis, and a relatively slow pulse. The symptoms of less importance are pain, tenderness, vomiting, jaundice and enlarged spleen.

Lastly, appendicitis cases should be suspected when the liver is enlarged and there are signs of general sepsis.

RUBBER GLOVES IN ASEPTIC ABDOMINAL SURGERY.—C. H. Richardson (*N. Y. Medical Journal*, June 24, 1899) is a strong advocate of the use of rubber gloves in surgical work. He first prepares the hands as follows:

The finger nails should be cleared of gross dirt before beginning. Use sterilized water, and change it often. With a boiled stiff hand brush and green soap, scrub for a period of five minutes (it is longer by actual time than it seems when hurried) the lower third of arm, forearm and hands—giving special attention to the sides and base of nails, as well as underneath them and between the fingers. A sharp-pointed stick (orange wood is the toughest) assists in this locality. This removes the superficial scales of epithelium harboring the staphylococci. An ounce of oil of turpentine now applied and thoroughly rubbed in forms a creamy emulsion, removing most of the oily sebaceous material always present, and is a mild antiseptic. Another application of brush and soap for two minutes, and then carefully rinse the hands in plenty of fresh, sterilized water. Have some one pour one or two ounces of ninety-five per cent. alcohol over the arms and hands, rubbing them at the same time. This further frees the hands from any fatty material. Submerge in arm basin filled with warm 1 to 1000 bichloride solution the scrubbed area for five minutes; then rinse in normal salt solution to remove the bichloride solution remaining. If rubber gloves are to be worn, dry the hands with a sterilized towel. Have some one remove the pins from the towel in which the gloves are carried; remove the gauze wrapper yourself (it is sterile) and put on the gloves, which by the following plan of sterilization will require no powder shaken inside, and will slip on as readily as a kid glove. It is well to now submerge the gloved hand in a 1 to 1000 sublimate solution for two or three minutes, and rinse in normal salt solution. Touch nothing from this minute but your instruments.

If these procedures are rigidly carried out, a patient will never become infected from the hands, now the greatest source of danger in most well-regulated hospitals—the technique in other respects being first-class.

The gloves are prepared by first washing in soda solution, inside and out, and holding for a minute over a heater or gas flame, reversing once. Dust liberally the inside with dry-heat sterilized soapstone. Wrap each pair in a double layer of gauze: two pairs of, say, No. 8 for surgeon and assistant, and one pair No. 6 for nurse, laid on a towel and placed in a formic-aldehyd sterilizer for two hours. Wrap in towel already at hand, mark sizes with graphite, and they are ready at any or all times for hospital or out-of-town use. Four or five sets can be prepared at a time, as well as one; they are sterile, dry, already powdered, and can be put on in ten seconds.

CLINICAL AND SCIENTIFIC CONTRIBUTIONS UPON THE VALUE OF THE WIDAL REACTION—BASED UPON THE STUDY OF TWO HUNDRED AND THIRTY CASES.—Drs. Anders and McFarland (*Philadelphia Medical Journal*, vol. 3, no. 15) have made 1100 tests; nearly all the work was done with a dilution of 1.10. The standard dilution of 1.50 is only called for when the clinical signs do not coincide with the test. The cases of the authors were either typhoid or not typhoid fever. The conditions of the culture should be the following:

1. Age. The individuals of a young culture are rather longer and more actively motile, both of which features are essential to success; cultures less than twenty-four hours old are best.

2. Activity. Agar cultures three or four weeks old are the best to make the plants from; more frequent transplantation will give colonies which might react with normal blood.

3. Virulence. It is important to use only attenuated cultures; different observers are at variance on this point, but Wyatt Johnston is emphatic upon the use of attenuated cultures.

4. Reaction of culture medium. This should be very faintly but distinctly alkaline; acid media may entirely prevent agglutination.

5. Vitality of the culture. This is only necessary to show loss of motion; dead cultures react just as well in other respects. Gruber's theory of reaction was that the serum acted upon the capsules of the bacilli, causing them to swell up and become adhesive.

In conclusion, certain precautions and axioms bearing upon the clinical value of the serum reaction in diagnosis of typhoid fever are summarized:

1. The disease is not to be excluded on account of the absence of a positive Widal reaction, since genuine cases have been met with in which a negative result has been obtained throughout.
2. All cases that react positively are to be regarded as typhoid fever until a thorough bacteriologic examination fails to reveal typhoid bacilli anywhere in the body, as cases occur in which the usual enteric lesions are entirely wanting.
3. Taken singly the sero-reaction is the most trustworthy indication of typhoid fever.
4. Although not an early diagnostic symptom, it nevertheless serves to complete the diagnosis in the great majority of cases at the earliest date possible.
5. Since the sero-reaction may be long delayed and very exceptionally absent throughout, it cannot be solely relied upon for therapeutic purposes.
6. Previous attacks of typhoid fever, within one or two to three years, render the test valueless.
7. In order to secure accurate results, the technique is to be carried forward by a trained bacteriologist.

INTUBATION OF LARYNX IN LARYNGEAL DIPHTHERIA OR PSEUDO-MEMBRANOUS CROUP.—Richmond McKinney (*Memphis Med. Monthly*, July, 1899) says that Bouchut in 1858 conceived the idea of fashioning a tube to fit and remain in the interior of the larynx, and Bouchut's procedure was condemned by the French Academy of Medicine, and intubation accordingly fell into oblivion until 1880, when O'Dwyer began his experiments with this method, and five years later made it public. The indications for intubation in laryngeal diphtheria are one—threatening stenosis of the larynx with the diphtheritic false membrane. If the tube be ejected by coughing, which is often the case, it should be reintroduced until finally it is retained. The author has but exceptionally met with difficulty in deglutition while wearing the tube; but if this be encountered, the suggestion that the child be placed on the back while feeding offers a practical way of overcoming this difficulty. Without intubation or tracheotomy and antitoxin, the mortality from laryngeal

diphtheria has heretofore been from ninety to ninety-five per cent. Halstead finds that the mortality of intubations without serum is seventy-six per cent., and eliminating cases of death within twenty-four hours of injection, a mortality of ten per cent. with serum. Waxham reports twenty-nine consecutive intubations for laryngeal croup, with twenty-seven recoveries, all with antitoxin. It is seen from statistics that under two years of age the percentage of recoveries after intubation is five times as great as after tracheotomy, while only in cases from four and a half to five and a half years of age is the percentage in favor of tracheotomy, and then but a mere fraction. In the author's experience he has found results quite a good deal better from intubation. Intubation can claim over tracheotomy that the consent of the parents is more readily gained, it is freer from shock, there is no danger of wound infection, the danger of broncho-pneumonia developing as a result of the inspiration of impure and insufficiently warm and moistened air is almost nil, and recovery is more rapid. In thirty cases of his own which he intubated for laryngeal diphtheria, there were but four deaths. In all his cases antitoxin was used at once, the diagnosis being confirmed bacteriologically afterward.

COCAINIZATION OF THE SPINAL CORD.—Bier, of Kiel, in the *Deut. Zeitschr. für Chirurgie* for April (*Med. News*, July 1, 1899), relates his experience with an entirely new application of a local anesthetic to produce general anesthesia. By the bold expedient of throwing small quantities of very dilute cocain solution (0.005–0.01 gram of cocain) directly into the spinal canal, he attacks the nerve roots and ganglia themselves, as well as the non-medullated nerve trunks before their emergence from the spinal column, and produces satisfactory anesthesia of the whole body beneath the nipple line. Insensibility is complete seven or eight minutes after the injection, which is done after the manner of Quincke's lumbar puncture, made painless by a preliminary Schleich's infiltration, and continues for about three quarters of an hour. Strange to say, heat and cold perception and also the touch and pressure senses are preserved, but all impressions of pain are entirely obliterated. Because of this, and inasmuch as it seems incredible that the entire thickness of the large nerve trunks should be permeable by the solution in so short a time, the inference is drawn that the pain-

conducting fibers are placed at the periphery of the nerve bundle.

Bier performed in this way such severe operations as osteoplastic resection of the ischium, knee and ankle joints, necrotomy of the tibia, resection of the femur, etc., to the perfect satisfaction of the patients. By experiment on himself and a colleague, he also proved that the anesthesia was absolute and its production unaccompanied by unpleasant sensations.

Unfortunately for the vogue of the new method, however, the after-effects are quite as undesirable and much more prolonged than those following chloroform or ether, and consist in dizziness, severe headache, nausea and vomiting. As these symptoms do not put in an appearance until a number of hours after the operation, it is assumed that they are due merely to the disturbance of the cerebro-spinal system, and not to any direct toxic effect of the drug, and it seems probable that modification of the solution employed may eliminate these difficulties. While in its present form, suitable only for individual cases where the use of the usual anesthetics is inadmissible, the idea is a very promising one, and opens up a most suggestive field for investigation.

CLOSURE OF THE ABDOMINAL INCISION AFTER LAPAROTOMY AND THE TENDENCY TO HERNIA.—In the course of time, abdominal operators have reached a proficiency in technique and an assurance in the application of the details of asepsis that have made laparotomy a comparatively facile and safe procedure. There has, however, remained an objection not foreseen at first, but ever becoming more insistently prominent as the number of abdominal operations increased. Despite the most anxious care and most solicitous technique, ventral herniæ occur at the site of the abdominal incision and often make life miserable for the patient. The frequency of the occurrence of hernia has become one of the great sources of opprobrium to modern abdominal surgery, and it is not unusual to have patients who do not fear the result of the operation itself hesitate to undergo it because of the fear of the subsequent hernia that they have learned to dread from the experience of friends or acquaintances.

The review of the recent results of post-operational hernia by Dr. John G. Clark, of Johns Hopkins Hospital (*Progressive Medicine*, vol. 2, June, 1899), shows that a number of factors which

have usually been considered as influencing the production of hernia really have no etiological connection with it. For instance, permitting the patients to get up after seventeen or eighteen days does not predispose to hernia, and keeping them in bed for longer periods does not prove a prophylactic against its occurrence. The wearing or failure to wear a bandage after operation does not affect the liability to hernia, either favorably or unfavorably. Pregnancy following immediately or remotely after operation plays no part in the production of hernia, despite preconceived notions to the contrary.

It is evident, then, that the occurrence of ventral hernia after operation is mainly due to the method of closing the abdominal wound, despite all that has been said by certain gynecologists abroad as to the advantage to be derived in this matter from making the incision through the rectus muscle. Dr. Clark, from his experience at Johns Hopkins, as well as his records of the subject, decides in favor of the incision in the linea alba. Two things are necessary to lessen the tendency to hernia in closing the incision: First, the fascia—i. e., the aponeurosis of the recti muscles—must be carefully brought together so as to secure complete and firm continuous union along the line of section. The essential point in placing the sutures is to catch enough of the aponeurosis to firmly bring the borders of the fascia not only into complete coaptation, but also to slightly elevate them into a median ridge. The coaptation of the fascia must be especially exact at the lower end of the incision, when the liability to hernia is greater, because the layers of fascia are fewer.

The second requisite for a firm cicatrix is to secure healing *per primam*, and this is best secured by leaving no dead spaces in which blood or lymph may collect to become infected and by allowing no penetrating cutaneous stitches through which microorganisms may penetrate from the surface, despite the most careful precautions.

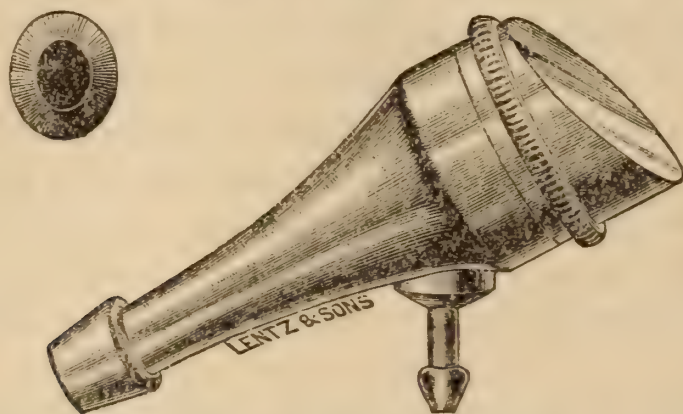
On the whole, this subject of the avoidance of hernia by a careful technique in the closure of the abdominal incision would seem to have reached a development that leaves very little to be desired, and it is evident that it is only in patients with especially relaxed tissues or with natural tendencies to hernia that the operator may feel exempt from responsibility in future cases of this annoying sequela.

THE TECHNIQUE OF LARYNGECTOMY.—W. W. Keen (*Annals of Surgery*, July 18, 1899). The incision is made in the median line and the thyroid cartilage split to enable an inspection of the interior. After deciding upon a total laryngectomy, the soft parts are entirely dissected from the larynx till the esophagus is reached posteriorly, all vessels being ligated as cut. The trachea is now divided entirely across below the level of the cricoid, and anesthesia continued through the open end of the trachea, thus dispensing with the performance of a low tracheotomy. With a hook the lower end of the larynx is raised, and by blunt dissection the esophagus separated to the upper level of the larynx. With scissors the attachments to the upper border of the larynx are severed and the larynx removed; the epiglottis is drawn down into the wound. The upper edge of the anterior wall of the pharynx is stitched to the tissues below the hyoid bone, and the cut end of the trachea stitched to the skin margin of the wound and the wound above the tracheal opening closed. The operation is done with the patient in the Trendelenburg posture, and the patient kept thus in bed for twenty-four hours. The bed is placed level on the second day; the patient sits up in bed with a bed-rest on the third day, and is out of bed on the fourth day. Rectal feeding is used for thirty-six hours, and afterward liquids in small quantities, followed by a swallow of water for cleansing, are given by the mouth. A tube under the control of the patient should be introduced, as needed, into the tracheal opening to prevent contraction. The several days preceding operation should be devoted to cleansing the mouth and nose. All carious teeth should be extracted, the toothbrush used frequently, and mouth and nose frequently sprayed with an antiseptic solution.

EXCISION OF THE RIGHT SUPERIOR CERVICAL GANGLION OF THE SYMPATHETIC FOR GLAUCOMA.—J. M. Ball, E. C. Renaud and Willard Bartlett (*N. Y. Medical Journal*, July 1, 1899). The patient, a woman, aged 56 years, was operated upon May 15, 1899. Vision was reduced to light perception; tension, +3. The incision was four inches in length downward from the mastoid along the posterior border of the sterno-cleido-mastoid. The spinal accessory nerve was cut. After exposing the carotid sheath and opening it to identify the pneumogastric nerve, the nerve, artery and vein were pulled forward, exposing the rectus capitis anticus muscle upon

which the ganglion lies. After tearing through fascia, the ganglion was isolated and cut high up with curved scissors, and about one inch of the sympathetic trunk below the ganglion was removed. Time of operation, fifteen minutes. The immediate effects of the operation were: relief from pain, a reduction of tension to $+2$, injection of the conjunctiva, and suffusion of the eye with tears. Later slight ptosis of the right lid was noted. Four days after the operation the tension was $+1$.

A MODIFIED SIEGLE'S PNEUMATIC AURAL SPECULUM.—Charles H. Burnett (*Jour. A. M. A.*, June 3, 1899) describes a modified Siegle pneumatic speculum, which is practically a Gruber speculum made of metal, to which is fitted the glazed lid that transforms it into the Siegle pneumatic speculum. Its extreme length is 5.5 cm., and its diameter at its meatal end is 6 mm. in vertical by 4 mm. in transverse diameter. This renders it more adaptable to the shape of the meatus. It is nickel-plated both within and without, which gives it a better reflecting surface than possessed by the black-rubber Siegle instrument found in the shops. The two small openings on its inner wall at the point connecting it with the air tube act like a sieve to prevent the drawing up of particles of cerumen or dirt



Burnett's Modified Siegle's Pneumatic Aural Speculum.

into the operator's mouth—another advantage over the ordinary Siegle's instrument. The attachment for the air tube is in the long axis, causing a downward curve of the rubber tubing, and preventing a kinking of this, which sometimes occurs in the old forms of Siegle with the attachment in the transverse axis. The chief advantage, however, lies in the meatal end of the speculum. The outside of this end is made to rapidly widen for a distance of a centimeter from the end to a diameter of 11 mm. vertically and 10 mm.

transversely, thus giving a graduated and fitting hermetically into any adult meatus without the addition of rubber packing or replacing of another speculum with a smaller or larger diameter, as in the usual forms of the hard-rubber Siegle.

[The writer has used this instrument, and finds it vastly superior to the older patterns of Siegle's speculum.]

INTRAUTERINE VAPORIZATION.—Abram Brothers (*N. Y. Medical Journal*, May 13, 1899) summarizes the present uses of vaporization or vapo-cauterization as follows:

1. *As a hemostatic* it has been employed most successfully in cases of non-malignant post-climacteric uterine hemorrhages. It has proved curative in the various irregular bleedings met with in connection with catarrhal fungoid or hemorrhagic endometritis. It acts as a palliative measure in certain cases of fibroid tumor or inoperable carcinoma associated with hemorrhages.

2. *As a caustic* it can be relied on to destroy the mucous lining of the uterus, even to the extent of obliterating the uterine canal.

3. *As a bactericide* it may be used in cases of gonorrheal and septic puerperal endometritis. Fenomenow has repeatedly had the uterus (which was subjected to vaporization and later removed by hysterectomy) examined bacteriologically and proved it to be sterile.

4. *To reduce the bulk of the subinvolved uterus*, Pincus has frequently resorted to intrauterine vaporization with success.

5. *In Chronic Suppurating Fistulous Tracts*. Fenomenow has reported successful results in cases of abdominal fistulæ of several years' duration, which had resisted all other methods of treatment.

TREATMENT OF FRACTURES OF THE PATELLA.—Will J. Means, A.M., M.D. (*Columbus Medical Journal*, July 5, 1899), concludes as follows:

1. The results of the non-operative treatment are unsatisfactory, both as to long confinement and functional disability.

2. The methods of maintaining apposition of the fragments by external appliances are unsatisfactory and unscientific.

3. In open arthrotomy the fragments can be carefully approximated and sutured in such manner as will maintain apposition and ultimately bony union.

4. The operative method saves months of confinement, and gives permanent results.

5. The buried suture material should be absorbable, such as catgut or kangaroo tendon.

6. The field of operation should be continuously irrigated with a hot salt solution during the manipulation, and the incision closed without drainage.

7. The massage treatment, begun at an early date, is an important factor in restoring the functional activity of the joint.

A CASE OF TEMPORAL ABSCESS DRAINED THROUGH THE ATTIC AFTER OSSICULECTOMY AND CURETTEMENT.—Stillson (*Laryngoscope*, July, 1899) saw a woman, thirty years old, three months after an attack of acute mastoiditis, which had been only partially relieved. She was anemic, had no appetite, could not sleep, had lassitude, attacks of shivering (convulsions?), vertigo, tinnitus, paresis of the extremities and muscles of the face, occasionally slight delirium and incontinence of urine, fluctuation of temperature from 98° to 104°, with rigors, a fluctuating pulse, hyperemic optic disks, and dilated pupils. There was a small perforation up and back in a congested membrana tympani, slight mastoid redness and tenderness, pain in the affected side of the head, and tenderness above the ear. The last symptom, with slight evidences of mastoid involvement, pointed to extension of the process to the cranial cavity by way of the roof of the middle ear; and this fact, together with the patient's bad general condition, determined the operator to attack the disease, if possible, through the ear. After removing the drum, malleus and incus, a bent probe was passed upward in the attack and a narrow necrosed opening detected. A bent curette was introduced, and caused a free evacuation of pus. The patient rapidly recovered, but had some metastatic abscesses on the legs. The patient regained her health, and at last reports was doing her household work, had no discharge from the ear, and could hear ordinary conversation at eight or ten feet with the affected ear.

THE TREATMENT OF MALIGNANT TUMORS.—Coley (*Practitioner*, April, 1899) concludes, in regard to the treatment of malignant tumors with the mixed toxins of erysipelas and bacillus prodigiosus, as follows:

1. The mixed toxins of erysipelas and bacillus prodigiosus have

an inhibitory action upon the growth of malignant tumors of whatever variety.

2. This influence is far more marked in sarcoma than in carcinoma, and differs very markedly in the different varieties of sarcoma, being most pronounced in the spindle-celled variety and least in the melanotic.

3. A considerable number of inoperable sarcomata, the correctness of the diagnosis of which is beyond question, have entirely disappeared under this method of treatment.

4. A large portion of these cases have remained free from recurrence more than three years after treatment—a period which has generally been accepted as of sufficient length to justify their being regarded as permanent cures.

5. The action of the toxins upon sarcoma must be regarded as a rapidly progressing necrobiosis with fatty degeneration. This action in no way resembles that of a local escharotic, but is rather specific in character, exerting its destructive influence upon the tumor tissue when injected subcutaneously at a distance, as well as when introduced locally.

6. This method of treatment is attended with some risk, unless certain precautions are taken. These risks are: (*a*) collapse from too large a dose, especially when injected into a very vascular tumor; (*b*) pyemia from insufficient care as regards asepsis, especially in the presence of a granulating or sloughing surface. That these risks are slight is shown by the fact that, in upward of two hundred cases of malignant tumor treated personally, death occurred in but two as a result of the treatment.

7. The use of small doses of the toxins for a short time after primary operation as a prophylactic measure theoretically has much to recommend it.

8. The action of the toxins upon sarcoma, as shown by the clinical results, is in strict accordance with the known action of the living streptococcus of erysipelas; hence the method rests upon a perfectly logical and scientific basis.

9. The toxins, to be of value, must be prepared from highly-virulent cultures of the streptococcus of erysipelas.—*The Monthly Cyclopedic of Practical Medicine.*

TREATMENT OF A SUPPOSED "KISSING BUG" WOUND, FOLLOWED BY PROMPT RECOVERY.—Burrall (*Medical Record*, July 15, 1899) saw a man the day after he was bitten or stung on the forearm. The lesion was round and elevated, and covered by four longitudinal vesicles. The wrist and back of the hand were swollen, and flexion and extension of the fingers painful. Tincture of iodine applied once, and sulphide of calcium internally, were followed by prompt relief.

BOOK REVIEWS.

Any medical book can be obtained through the *Lancet* at publisher's prices, postage free. Terms cash. The usual discounts are allowed.

The Anatomy of the Central Nervous System of Man and of Vertebrates in General. By Prof. Ludwig Edinger, M.D., Frankfort-on-the-Main. Translated from the Fifth German Edition, by Winfield S. Hall, PH.D., Professor of Physiology in the Northwestern University Medical School, Chicago. Assisted by Philo Leon Holland, M.D., Instructor in Clinical Neurology in the Northwestern University Medical School, Chicago, and Edward P. Carleton, B.S., Demonstrator of Histologic Neurology in the Northwestern University Medical School, Chicago. Illustrated with 258 engravings, 6½x9½ inches. Pages, xi-446. Extra cloth, price \$3. Philadelphia: The F. A. Davis Co.

A remarkably clear and able exposition of the origin and structure of our nervous system, together with the points of resemblance to that of the lower vertebrates. The first part is an explanation of the neuron theory of the general structure of the nervous system; it is scholarly, and, from the evidence adduced, convincing that we are on the right track to a much better understanding of the structure and functions of the various parts of the system. The second part considers the origin of the nervous system from the epiblast and the mode of development of the several centers found in the adult brain and cord. This part is clear, but rather brief, giving more space to comparison with the lower types of vertebrates, and demonstrating, by many admirable plates, just the point at which development ceases in each of the species described. The third part is probably the most interesting to the physician. It is devoted to a study of the mammalian brain, and describes most fully the general structure of the brain and the innate anatomy of the principal centers, together with the course of the nerve fibers leading to and from these centers, with a further consideration of the physiological action of each individually, and the system acting as a whole. The value of the book is much enhanced by elaborate illustrations, and in many places they assist very materially in the explanation of difficult points in the text. The translators are to be congratulated upon presenting such a readable work on a subject that is too often made dry and uninteresting. The printing is good, paper of fine quality, and the general appearance very favorable to a good impression.

Practical Diagnosis: The Use of Symptoms in the Diagnosis of Disease. Fourth Edition, Revised and Enlarged. By Hobart Amory Hare, M.D., B.Sc., Professor of Therapeutics in the Jefferson Medical College of Philadelphia; Physician to the Jefferson Medical College Hospital; Laureate of the Medical Society of London, of the Royal Academy of Medicine of Belgium; Corresponding Fellow of the Sociedad Espanol De La Higiene of Madrid; Member of the Association of American Physicians; Fellow of the College of Physicians of Philadelphia, etc.; Author of A Textbook of Practical Therapeutics. Illustrated with 205 engravings and 14 colored plates. Lea Brothers & Co., 1899.

This is the fourth edition of a work the third edition of which only appeared in September, 1898. This bespeaks marked and well deserved popularity for the book. The arrangement, we notice, is quite different from that usually followed in textbooks on this subject, and is such as to make it a most ready reference book and guide for both student and practitioner. It contains 579 pages exclusive of a double index consisting of 51 pages. The cuts, consisting of 205 engravings and 14 colored plates, are what particularly interest us, for the reason that they are so suggestive, without being overdrawn. The three cuts on pages 274 and 275, illustrating the alar and phthisical chest, are very instructive, to say nothing of the elaborate cuts on the eye, skin and nervous system. Plate 3, however, illustrating in colors the typhoid tongue, bilious tongue, etc., could be improved upon very much; they convey the idea, but are far from true. Plates 12 and 13, illustrating the different forms and stages of the parasite of malaria, are the same as those found in Thayer, and are exceedingly good. The same is to be said of the cuts showing the microscopic appearance of the urinary sediments. We heartily commend the book.

Progressive Medicine: A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D. Volume II. June, 1899. Surgery of the Abdomen, including Hernia; Gynecology, Diseases of the Blood, Diathetic and Metabolic Disorders; Diseases of the Spleen, Thyroid Gland and Lymphatic System; Ophthalmology. Lea Brothers & Co., Philadelphia and New York, 1899.

The chapters on abdominal surgery, by Wm. B. Coley, include "the use of drainage in abdominal surgery," "the use of rubber gloves in abdominal surgery," "abdominal incisions," "the treatment of intestinal paralysis and peritonitis by enterostomy," "a review of the surgery for the complete removal of the stomach," "operations for malignant disease of the stomach, including resections and gastro-enterostomy," and "the surgery of gastric ulcer," with very complete illustrations of the various methods and steps in the same. There are twelve pages on the gall bladder and bile ducts, and chapters are given to the liver, duodenum and colon. Intestinal anastomosis is given twenty pages, operative treatment of hernia thirty pages, appendicitis sixteen pages. Laparotomy for various conditions is treated briefly, and the malignant disease of the rectum closes this reviewer's work. No one can fail to be edified by it.

Gynecology is given 104 pages by John G. Clark, who covers the year's literature very fully. Some of the chapters are: "Removal of ovary in hystero-myomectomy," "influence of castration upon the female," "methods of closing abdominal wounds," "gonorrhea in women," "retroflexion and radical operation for carcinoma uteri."

Alfred Stengel has the next department, with 117 pages. Among the subjects under diseases of the blood, he has technique of testing alkalinity, estimation of iron,

of hemoglobin by the specific gravity method; origin and classification of leukocytes, leukocytosis, eosinophilea, the various anemias, etc. Scurvy, hemophilia, paroxysmal hemoglobinuria, splenectomy, Addison's disease, diabetes mellitus, myxedema, Graves' disease, etc., etc., are also considered.

Ophthalmology, by Edward Jackson, covers ninety pages, with 326 references.

BOOKS AND PAMPHLETS RECEIVED.

Atlas of Diseases of the Skin, Including an Epitome of Pathology and Treatment. By Prof. Dr. Franz Mracek, of Vienna. Authorized Translations from the German. Edited by Henry W. Stelwagon, M.D., PH.D., Clinical Professor of Dermatology at Jefferson Medical College of Philadelphia; Physician to the Department of Skin Diseases, Howard Hospital; Dermatologist to the Philadelphia Hospital, etc. With 63 colored plates and 39 full-page half-tone illustrations. Philadelphia: W. B. Saunders, 1899.

An Epitome of the History of Medicine. By Roswell Park, A.M., M.D., Professor of Surgery in the Medical Department of the University of Buffalo, etc. Based upon a Course of Lectures delivered in the University of Buffalo. Second Edition. Illustrated with portraits and other engravings. 6½ x 9½ inches. Pages, xiv-370. Extra cloth, \$2 net. The F. A. Davis Co., Publishers, Philadelphia.

A Review of Recent Legal Decisions Affecting Physicians, Dentists, Druggists and the Public Health, Together with a Brief for the Prosecution of Unlicensed Practitioners of Medicine, Dentistry or Pharmacy, With a Paper upon Manslaughter, Christian Science and the Law, and Other Matter. By W. A. Purrington, of the New York Bar, Counsel for the Dental Society of New York, and Lecturer on Medical and Dental Jurisprudence in the New York College of Dentistry, and one of the Collaborators in "A System of Legal Medicine," by Allan McLane Hamilton and Others, etc., etc. New York: E. B. Treat & Company, Publishers, 1899.

The Newer Remedies—A Reference Manual for Physicians, Pharmacists and Students. By Virgil Coblentz, A.M., PH.M., PH.D., F.C.S., etc., Professor of Chemistry and Physics in the New York College of Pharmacy; Author of "Handbook of Pharmacy;" Member of the Chemical Societies of Berlin and London; Fellow of the Society of Chemical Industry, etc., etc. Third Edition. Revised and very much enlarged. Philadelphia: P. Blakiston's Son & Co., 1899.

Practical Diagnosis—The Use of Symptoms in the Diagnosis of Disease. By Hobart Amory Hare, M.D., B.Sc., Professor of Therapeutics in the Jefferson Medical College of Philadelphia; Physician to the Jefferson Medical College Hospital; Laureate of the Medical Society of London, of the Royal Academy of Medicine in Belgium; Corresponding Fellow of the Sociedad Espanol de la Higiene of Madrid; Member of the Association of American Physicians; Fellow of the College of Physicians of Philadelphia, etc.; Author of "A Textbook of Practical Therapeutics." Fourth Edition, revised and enlarged. Illustrated with 205 engravings and 14 colored plates. Lea Brothers & Co., Publishers, 1899.

Progressive Medicine—A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Vol. II. Edited by Hobart Amory Hare, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, handsomely bound in cloth, 472 pages, 56 illustrations and 3 full-page plates. Lea Bros. & Co., Philadelphia and New York.

A Simple Method of Preparing a Serviceable Solution of the Supra-Renal Gland for Nasal or Laryngeal Application. By M. D. Lederman, M.D. (Reprinted from the *Laryngoscope*, April, 1899.)

The Progress of Otology. By M. D. Lederman, M.D., New York. (Reprinted from the *Laryngoscope*, January, 1899.)

Chronic Appendicitis the Chief Symptom and Most Important Complication of Movable Right Kidney. By Geo. M. Edebohls, A.M., M.D. (Reprinted from the *Post-Graduate*, February, 1899.)

Surgical Anatomy of Hernia, Observations Thereon, with Results of Fifty Dissections. By Raymond Custer Turck, M.D. (Reprinted from the *Journal American Medical Association*, April 15, 1899.)

The Influence of Turbinal Hypertrophy Upon the Pharynx. By Lewis S. Somers, M.D., Philadelphia. (Reprinted from *University Medical Magazine*, May, 1899.)

The Differential Diagnosis of Pharyngeal Syphilitic Lesions and Diphtheria. By Lewis S. Somers, M.D., Philadelphia. (Reprinted from the *Philadelphia Medical Journal*, January 28, 1899.)

Chronic Nephritis Affecting a Movable Kidney as an Indication for Nephropexy. By George M. Edebohls, A.M., M.D., of New York. (Reprinted from the *Medical News*, April 22, 1899.)

Furunculosis of External Auditory Meatus Followed by Suppurative Otitis Media, with Mastoid Involvement and Operation. By M. D. Lederman, M.D., New York. (Reprinted from the *Laryngoscope*, April, 1897.)

The Relations of Movable Kidney and Appendicitis to Each Other and to the Practice of Modern Gynecology. By George M. Edebohls, A.M., M.D. (Reprinted from the *Medical Record*, March 11, 1899.)

The Hernia Guarantee and the Minimum of Confinement After Operations for Appendicitis With and Without Pus. By George M. Edebohls, A.M., M.D., of New York. (Reprinted from the *Medical Record*, May 13, 1899.)

Angina Ludovici Complicating an Acute Suppurative Otitis—Recovery. By M. D. Lederman, M.D. (Reprinted from the *Medical Record*, October 8, 1898.)

NEWS AND NOTES.

DR. JOHN MAURY spent a week at Sewanee early in July.

DR. T. J. CROFFORD will spend the month of August in Canada.

DR. S. E. RICE left on July 14 for a ten days' vacation in East Tennessee.

DR. W. B. ROGERS has left the city for a rest of a month or six weeks.

DR. M. B. HERMAN has gone to Atlantic City for a month's vacation. He will return about August 15.

DR. CHAS. B. PENROSE has resigned the chair of gynecology at the University of Pennsylvania, and applicants for the position are requested to hand in their credentials to the board of trustees by September 18, 1899.

DR. FRANK M. RUMBOLD has disposed of his interest in *The Laryngoscope* to Dr. M. A. Goldstein. *The Laryngoscope* is the only regular monthly journal in this country devoted to diseases of the ear, nose and throat, and has been owned and edited by Drs. Rumbold and Goldstein jointly. Dr. Fayette C. Ewing has been added to the staff as abstract editor. The LANCET wishes its St. Louis contemporary and its able editor the fullest measure of success.

At the July meeting of the Memphis Medical Society, Dr. T. J. Crofford was recommended to the City Council for the position on the gynecological staff of the City Hospital, made vacant by the resignation of Dr. R. B. Maury.

THE Illinois State Medical Society has decided to publish its transactions in journal form, and the first number bears the date of July, 1899. All the matter is what pertains to the society and its members, and the journal is well gotten up.

DR. EDWARD DANA MITCHELL, having completed his year of service as resident physician at St. Agnes Hospital, Philadelphia, has returned to Memphis, and will be associated with Drs. Mitchell and Maury. Dr. Mitchell is a graduate of the University of Pennsylvania, and a son of the late Dr. Edward Mitchell.

THE *American Medical Quarterly*, published in New York, has made its appearance, and if it lives up to the character of its first number it will rank as positively the best American medical journal. The field of medical journalism is well occupied, but there is plenty of room for such splendid new comers as this.

ACCORDING to the lay press, a boy in South Braintree, Mass., is said to possess "X-ray eyes." He has diagnosed accurately a number of fractures, and excluded foreign body in the stomach in a case in which a post-mortem proved him to be correct. The boy is 12 years old, and not otherwise different from any other boy.

THE American Electro-Therapeutic Association will hold its ninth annual meeting at Washington, D. C., September 19, 20, 21, 1899. The committee promises a reception by the President of the United States, an excursion to Mt. Vernon, Arlington and Alexandria (a buffet lunch to be served at Alexandria), and an evening visit to the Congressional Library, to be viewed under electrical illumination. Provisions have also been made to visit the War, State and Navy Departments, the United States Treasury, and other public buildings.

MR. SAUNDERS announces the early appearance of the following books: "The Hygiene of Transmissible Diseases," by Dr. A. C. Abbott, of the University of Pennsylvania; "The International Textbook of Surgery" (in two volumes), edited by J. Collins Warren and A. Pearce Gould; "A Textbook of Embryology," by J. C.

Heisler; "Diseases of the Nose and Throat," by D. Braden Kyle; "The Treatment of Pelvic Inflammations Through the Vagina," by W. R. Pryor; and "A Manual of Diseases of the Eye," by Edward Jackson. This is a notable addition to medical literature, and all the books will be gotten up in Mr. Saunders' usual excellent style.

THE daily papers have contained glowing descriptions lately of a serum for yellow fever, prepared by Dr. Alvah H. Doty, health officer of the port of New York, and used successfully on a yellow fever patient in quarantine. The serum was obtained from the germ isolated from some cases of yellow fever at Swinburne Island in 1897. This germ, if not the bacillus coli communis, is, according to one of Sanarelli's assistants, identical with Sanarelli's bacillus icteroides, and the serum probably the same as his anti-marillic serum. It will be remembered that Sanarelli tested his serum by inoculating and treating patients furnished him by the government of Uruguay from its insane asylums, and his conclusions, as well as those of the Army Medical Museum and Marine Hospital Service, were anything but enthusiastic. The daily papers are therefore, with their characteristic propensity for error in medical matters, making a great deal out of what is really a very little.

We have received the following resolution, which is self explanatory:

WHEREAS, The position of the Surgeon-General of the United States Army involves great and grave responsibility, the direction of vast interest, the highest order of professional skill and learning and executive ability, and

WHEREAS, The number of officers and soldiers under the direction of the surgeon-general in an army organized as is the Army of the United States is greater than the command of a division commander,

Be it resolved by the Medical Association of Georgia, That it is the sense of this body that the Surgeon-General of the Army should have the rank, pay and allowances of a major-general;

Resolved, That the Medical Association of Georgia requests all the medical societies of the United States to join in this appeal;

Resolved by the Medical Association of Georgia, That copies of these resolutions be transmitted to the President of the United States, the Honorable Secretary of War, and our Senators and Representatives in Congress, with the request that all coöperate in attaining the end sought; and further, that copies be also sent to the American Medical Association, and all other medical societies in the United States, with the request that they join in this memorial to Congress and urge prompt action upon this subject by our national legislative authorities.

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CLINICAL NOTES.

PROTONUCLEIN IN GENERAL PRACTICE.—The science of bacteriology teaches that pathogenic bacteria produce poisonous substances, ptomaines and toxins, as a result of their multiplication and growth, and that these poisons usually cause the illness, and perhaps the death, of our patient. It has also been demonstrated that most disease germs can inhabit the body of a susceptible animal for but a comparatively short time, causing either death or the establishment of an immunity which results in the eradication of the germ. The immunity thus established will continue through life in many diseases, while in others it will disappear by the lapse of time. What the exact nature of this immunizing process is, has not as yet been definitely established, but the antitoxin theory seems to be the most feasible one.

The manufacturers of protonuclein try to explain the efficiency of this preparation on the nuclein and leukocyte theory; but, if immunity is established by the production of nuclein and a resulting leukocytosis, then it is difficult to understand why it is that immediately after immunity against one variety of germ has been established, another variety may invade the body and cause disease. It is a matter of common experience to find a child taken sick with

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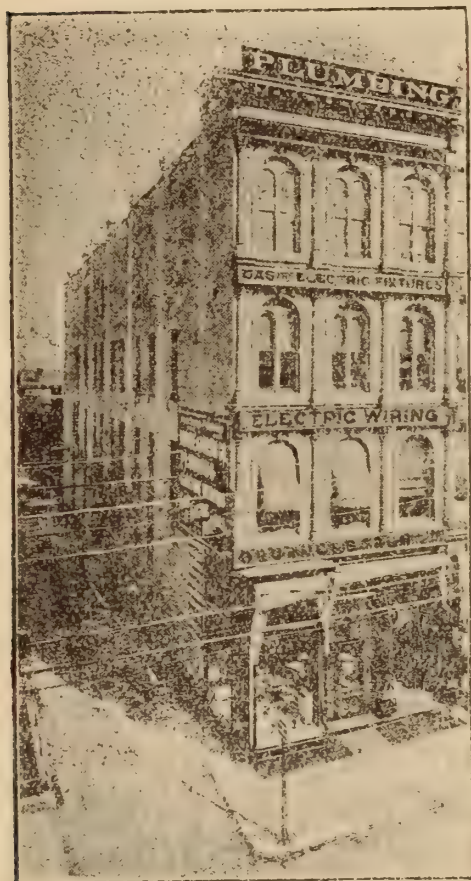
measles after a recovery from scarlet fever, or to have the streptococcus or staphylococcus invade a patient who has fairly established an immunity against scarlet fever, diphtheria or some other infectious disease, causing inflammations and abscesses which are often as serious as the original disease. It appears to me that if leucocytes are instrumental in establishing an immunity against the germs which caused the first disease in these cases, they would be equally as potent in preventing a second invasion. It appears that the germs or their toxins play an important part in the production of these immunizing substances. Anyone who has given diphtheria antitoxin a fair trial in the treatment of diphtheria can readily appreciate the plausibility of the antitoxin theory of immunity.

What the composition or nature of these immunizing substances is, and how or by what organs of the body they are produced, is still a matter of conjecture; but it is not unreasonable to suppose that the lymphatic, thymus, thyroid, splenic and similar glands have much to do with their production. If these glands have anything to do with establishing immunity against pathogenic bacteria, then it is just as reasonable to suppose that extracts from these glands will assist in curing disease, as that pepsin derived from the peptic glands will assist in digestion; and it is for the purpose of directing attention to this line of therapeutics that I wish to give my experience with protonuclein.

According to descriptive literature pertaining to protonuclein, this preparation is obtained by a process of simple extraction from the thyroid and thymus glands, the pineal gland and pituitary body, bone marrow, pancreas, spleen, liver, salivary glands, Brunner's glands, Lieberkuhn's follicles, peptic glands and lymphatic structures derived from young animals. That the preparation is not a single compound, nuclein or protonuclein as its name implies, but a mixture of substances derived from the various structures from which it is obtained, is shown by the fact that it will digest albumins and starch, which the extracts from the peptic, salivary and pancreatic glands will account for. That thyroid extracts have a therapeutic value is quite well established, and that this preparation contains such extracts is apparent. If the extracts, derived from the other structures from which this preparation is made, have effects as varied as those obtained from peptic, salivary, pancreatic and thyroid extracts, it is apparent that in protonuclein we have decidedly a "shotgun" dose, and my experience with it has been that the shots which miss the mark inflict no injury. If gland extracts assist in establishing an immunity when given to persons afflicted with infectious disease, the fact will bear demonstration by practical experience at the bedside, and thinking that my experience with protonuclein may tend to promote clinical study, I will report a few cases, supplemented by some general statements, for your consideration.

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I have found protonuclein especially useful in the treatment of broncho-pneumonia in infants and children. In these cases I usually give from two to four grains, according to age, repeated every two to three hours, and find that recovery takes place in from three to five days. I have had remarkable success in treating pneumonia with this preparation, and will briefly report three cases.

Case I. My mother, aged 72 years, on April 8, 1897, suffered a severe chill about 9 o'clock in the evening. Two hours later, when I first saw her, she complained of pain in the right side, was coughing up bloody mucus, and was very uneasy. Her heart had been irregular for some years, but now the pulse was 130 and her temperature 103°. Physical examination revealed pneumonia of the right lung. I prescribed two grains of phenacetin and six grains of protonuclein, to be repeated every two hours. By 10 o'clock the next day her temperature was 99 $\frac{3}{4}$ ° and her pulse 108; the pain in her side was less, and she felt much better. The phenacetin was discontinued and the protonuclein continued. By the third day her temperature was normal, and she felt so well that in spite of my protests she was determined to sit up. She coughed up rust-colored sputum for six or seven days, but otherwise felt quite well. She has had no trouble with her lungs since.

Case II. J. R., a female, aged 20 years, had a chill at 6 o'clock in the morning, followed by fever and pain in the left side. I saw patient first at 8 o'clock P.M. next day, when her temperature was 102°, pulse 115, respiration short, with pain in the left side and dullness on percussion over lower half of left lung. I prescribed six grains of protonuclein and two grains of phenacetin, and ordered the dose to be repeated every two hours. Next day at 4 o'clock P.M. her temperature was 101°, pulse 108, and she felt and looked better, but coughed up bloody mucus. The third day at 4 o'clock P.M. her temperature was 104°, pulse 120, and she felt worse, having more pain in her side, coughing up much bloody mucus, and feeling restless. On inquiry I found that

she had only received her medicine every four hours, instead of every two hours, as I had directed. I now prescribed nine grains of protonuclein and two grains of phenacetin, and ordered that the dose be repeated every two hours. The fourth day at 3 o'clock P.M. her temperature was $99\frac{4}{5}^{\circ}$, pulse 96, and she felt better, coughed less, and had but little pain. The protonuclein and phenacetin were continued. The fifth day at 4 o'clock P.M. her temperature was 98° , pulse 83, but little bloody mucus being expectorated, lungs clearing up, and she felt like leaving the bed. The protonuclein was continued and phenacetin discontinued. The sixth day her temperature and pulse were normal, appetite good, and patient convalescent. I prescribed nine grains of protonuclein, the dose to be repeated four times a day for a few days, after which no further medication was required.

Case III. C. G., a male, aged 63 years, had not felt well for several days, and was taken with a fever the day before I saw him. Patient complained of pain in his right side and difficulty in breathing. His temperature was $102\frac{3}{5}^{\circ}$, pulse 110, and the lower portion of his left lung was inflamed. I prescribed six grains of protonuclein, and ordered that the dose be repeated every two hours. The next day there was hepatization of the lower half of the right lung, with a temperature of 102° and a pulse of 108. The protonuclein was now increased to nine grains, repeated every two hours. The third day the temperature was 101° and the pulse 100; he felt better, and on examination the lung was found to be clearing up. The protonuclein was continued. On the

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FELIX PAQUIN, Ph. B.,

Chemist and Bacteriologist of the Board of Health.
Member of the Association of Official Agricultural Chemists.

fourth day the temperature was 98° , the pulse 84; patient had enjoyed a night's rest, appetite was returning, and lung much improved. The fifth day I found my patient dressed and sitting in a chair; he said he felt well, but I persuaded him to go back to bed, fearing something might happen. I continued the protonuclein four times a day for a few days, when he made a complete recovery.

I have treated ten cases of typhoid fever with protonuclein, all of which made unusually early recoveries, considering the severity of the early symptoms of some cases. I will briefly report a case.

E. H., a female, aged 22 years, had been sick one day. When I first saw patient her temperature was 105° and her pulse 120; she was restless, talked in her sleep, skin dry, tongue dry, face flushed. An examination of her lungs revealed no indications of pneumonia. Diagnosis doubtful. I prescribed three grains each of protonuclein and phenacetin, to be repeated every two hours. The next day the temperature was reduced to $103\frac{1}{2}^{\circ}$, pulse 115, but patient was still restless, skin somewhat moist, tongue dry. On the third day her temperature was 104° , pulse 118, and she felt worse. The phenacetin and protonuclein were increased to four grains each, the dose repeated every two hours. On the fourth day her temperature was $103\frac{2}{5}^{\circ}$, pulse 121, but she felt no better. The capillary circulation was not good. The phenacetin was discontinued; and protonuclein, six grains, and quinin, two grains, repeated every three

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hours, were given. On the fifth day her temperature was 105°, pulse 123, bowels moved three times, other conditions not improved. Diagnosis, typhoid fever. The quinin was discontinued and the protonuclein continued, six grains every three hours. Cold packs were ordered every four hours when the temperature exceeded 102°. The cold packs were not used as often as directed, but were applied three or four times a day. The temperature came down gradually and the pulse improved until the thirteenth day, when the cold packs were discontinued, the temperature no longer rising above 102°. From the sixth to the twelfth day there was considerable diarrhea, the bowels moving from three to seven times in twenty-four hours. For this condition turpentine emulsion and bismuth were given. On the morning of the sixteenth day the temperature was normal, pulse 91; the diarrhea had ceased, she looked bright and felt good. After this the temperature varied from normal to 101° until the twenty-third day, when it suddenly ran up to 104°. The cold pack was applied but once, her temperature came down readily, and the patient made a rapid recovery, being able to sit up before the end of the fourth week. The appetite returned about the eighteenth day, and was good henceforth, except when she had the high fever on the twenty-third day. She lost her hair, as typhoid patients usually do, after convalescence.

This case started with unusual severity, and promised to be a dangerous or prolonged one. Her unusual early recovery, in my opinion, can be attributed to nothing but the protonuclein, which was continued until convalescence was completely established.

Protonuclein has a wonderful effect in maintaining the spirits and vitality of a patient during fever, and has no depressing effect, while it reduces the temperature. This is particularly noticeable in typhoid cases. They do not lapse into that stupid condition which is so characteristic of this disease.

When protonuclein is taken in large doses, say ten to fifteen grains, repeated every two or three hours, it produces a deafness and ringing in the ears very similar to that produced by large doses of quinin. In such doses it may also cause an unsteadiness of the nerves and an increased frequency of the heart's action. If this condition is observed during the treatment of a disease, it is well to withhold a few doses, when these symptoms will readily disappear, without leaving any bad effects.

I have given protonuclein in scarlet fever, with the effect of having the temperature decline and the swelling of the glands of the neck disappear while the rash is coming out. I have given it with great success in puerperal fever, erysipelas, infected wounds, and, in fact, consider it a valuable remedy in all infectious diseases.

Protonuclein also has quite marked tonic effects, which are particularly noticeable when given in cases of general debility resulting from advanced age. As a tonic it should be given in from six to nine grain doses after meals and at bedtime. In neurasthenic cases it is of benefit, restoring a normal tone to the nervous system. I have given it in a few cases of whoopingcough with benefit. I have given it to a few tubercular cases, but cannot say that it was followed by especial improvement. In cases wherein the temperature is high, I usually prescribe small doses of phenacetin as a palliative remedy to assist in bringing down the temperature until the protonuclein has time to produce results.

I consider protonuclein a very valuable addition to our remedies in combating disease, and feel that all who use it in large doses will be gratified with its results.—G. W. Sherman, M.D., Detroit, Mich., in the *Physician and Surgeon*.

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No. 3

ORIGINAL ARTICLES.

THE OPERATIVE TREATMENT OF EXOPHTHALMIC GOITRE.*

BY KARL DOEPFNER, M.D.
CHICAGO, ILL.

The manifold symptoms of exophthalmic goitre are now well known. The pathogenesis, on the contrary, is as yet very problematical. Theories we have had more than twenty, but not one of them could explain all the symptoms in a satisfactory manner. Pathological findings have been described in different organs, but their interpretation was soon contested. More than a thousand papers have been written about this interesting disease, and yet the discussion is far from being closed.

There are really only three different theories, the hematogenous, neurogenous, and thyrogenous, but each of these has several subdivisions. For instance: the early writers had many things to say about dyscrasia of the blood, anemia, scrofulosis, arthritism, even scurvy; so Graves, Trousseau, Basedow and their predecessors. Humoral pathology was then in full sway.† The believers in the neurogenous theory saw the trouble either in the sympathetic or in the pneumogastric nerve, in an affection of the bulbus or in

* Read before the Illinois State Medical Society, Cairo, May, 1899.

† Exophthalmic goitre was known as early as 1786 to an Englishman named Parry. But he, unlike our brethren of today, did not publish his observations before 1825. His idea was that the disease was of a hysterical nature.

a general vasomotor neurosis. In 1886 the thyrogenous theory came into evidence, and its followers maintain that there is either a quantitative change in the secretion of the thyroid juice (hyperthyroidization) or a qualitative change (dysthyroidization).

Each of the three principal theories has its partisans today, even the hematogenous, only the idea is a much clearer one according to our better knowledge of physiologic chemistry and metabolism. But I repeat that there are many other theories, most of which have passed into due oblivion. For not only did the pathologist not corroborate them, but the practitioner could not make any use of them for his therapeutic actions.

It was a long time until surgery began to participate in curing exophthalmic goitre. The surgeon first fought against symptoms only. The biggest operation ever advised was tracheotomy (Trousseau) in threatening asphyxia during a paroxysm. As I consider bleeding to belong to minor surgery it must be mentioned here. Trousseau always recommended it, "not with the view of combating the anemia and the nervous element of the disease. It is only with one end in view, namely, that of averting the imminent danger which may result from congestion of the thyroid body, of preventing asphyxia, by depleting the blood vessels, and of quieting palpitation (*Lectures on Clinical Medicine*, London, 1868)." He really saw a marked improvement in such a case after a few hours, followed by a cure after some weeks. However, it must be said that at the same time he used digitalis in large doses, and applied hydrotherapy. Others, believing also and even more in dyscrasia of the blood, resorted to bleeding and had similar results.

Remember this fact: It is true the old method of bleeding has long since been abandoned, but do we not even today bleed our patients only in a different manner? The celebrated von Graefe devised operations against the sad complications of exophthalmos: a tarsorrhaphy and a tenotomia partialis musculi levatoris palpebræ. Some directed their attention to the struma. Galvano-puncture was tried (Eulenburg, 1875), injections of iodine (Ollier, 1877), injections of perchlorid of iron (Hanfield Jones, 1864, 10 minims; he never did it again!) a seton was applied (Macnaughton Jones, 1874), followed by many months suppuration, chlorid of zinc (Jones), and a caustic paste (Ollier), etc. But Eulenburg wrote (1878) that all these measures had been of little or no avail. Some

specialist of course treated the nose (Hack, 1886), and, strange to say, had a success, a fact which corroborated the sympathetic theory.

Of a somewhat causal therapy we can only speak, since Moebius (1886) and Gauthier published their different views on the secretion of the thyroid gland and established the so-called thyroid, or "thyro-gene" theory according to Eulenburg. Now only the surgeon had a reason to intervene, for there was some hope of curing this disease by partial or even total removal of the thyroid gland. I do not mean to say that before this time (1886) the surgeons did not operate upon the thyroid gland in exophthalmic goitre cases. Strumectomy was tried as early as 1860 (Tillaux), later by Ollier and Lister (1877), and by Tillaux again in 1880. In 1884 Rehn (Frankfort) published three cases, followed in 1885 by Mikulicz. But these operations, total or partial extirpations and enucleations, were only undertaken in order to combat one symptom—the goitre. Nevertheless, some of the daring surgeons had cured their patients.

When Moebius and Gauthier's very plausible theories became known the surgeons for the first time had a real argument, which allowed a causal operative treatment, and they made use of it. In fact, the final results of many operations soon seemed to prove that the *primum movens* of the disease had its seat in the thyroid gland, that is, in its abnormal internal secretion which poisoned the body and produced symptoms which otherwise were so difficult to explain.

Different statistics have been published. Allen Starr, of New York, has collected 190 cases (*Med. News*, 1896, p. 427), in which number are included most of the European and American cases. As far as I can see, partial extirpation was mostly done. I cannot convince myself that all the cases described as total extirpations are true thyroidectomies, for it is not such an easy matter to really extirpate the whole thyroid gland. Some of the cases were exothyropexies (Poncet), others enucleations. Out of the 190 cases 45 cannot be made use of, for want of exact information. The results are:

74 cured, or 51 per cent.

54 improved, or 31 per cent.

3 not improved, or 2 per cent.

23 died, or 15.8 per cent.

The most remarkable fact in this table is the percentage of death immediately after the operation—15.8 per cent. And this death is not accounted for by hemorrhage or want of cleanliness or technique. From a few hours to a few days after the operation the patient may have sudden hyperpyrexia (104–107° F.), rapid pulse, restlessness, profuse perspiration, delirium, and death from heart failure. We look now at these symptoms as an acute poisoning of the body by so-called “hyperthyroidization.” The gland is supposed to secrete an abnormal (quantitative or qualitative, or perhaps both) juice in consequence of the irritation by the handling during the operation. This is a plausible explanation, but I doubt its correctness, for there are observations in the literature of similar symptoms, followed by death without any operation. The physicians of that time called “paroxysm” what we now name “hyper- or dysthyroidization.” Exactly for these symptoms Trousseau advised bleeding, the old-fashioned bleeding. And now our patients die when we have bled them according to our newest methods. Kocher himself, the most experienced operator for goitre, who has not had one death in his last 600 cases, has a mortality of 8.8 per cent in the operative treatment of exophthalmic goitre (3 out of 34 cases).

There exists another statistic, which I think is the last one. Sorgia collected 174 operated cases, which had been published from 1894 to 1896. In 2 cases the final result is not known, leaving 172. Of these were:

Much improved 27, or 15.2 per cent.

Considerably improved 62, or 36 per cent.

Cured 48, or 27.9 per cent.

Not improved or worse 11, or 6.4 per cent.

Died soon after operation 24, or 13.9 per cent.

You will notice that Sorgia makes two divisions with the improved; if not he would have as much as 51.2 per cent. improved patients. His number of cured shows only 27.9 per cent. instead of 51 per cent. in Allen Starr's table. It may be that in the latter table the “much improved” are numbered with the cured, for many a surgeon would perhaps say, “this patient is cured,” whereas the neurologist, for instance, would say, “no, she is only improved.” Therefore take it, like all other statistics, *cum grano salis*. The death rate is lower but still high. It is to be remembered that the

death rate in surgical statistics is rather too low. There is no more euphemistic man than the surgeon if it comes to a discussion about the death after operations: chloroform, ether, shock, intercurrent disease, and what else!

Until 1897 most of the surgeons recommended partial strumectomy in exophthalmic goitre. The general opinion was that any operation which effected the reduction of the size of the struma would benefit the patients (*German Congress of Surgery*, 1895). Some surgeons even had gone so far as to say that exophthalmic goitre was a strictly surgical disease, to which the physicians object, I think, with good reason.

In April, 1896, Jaboulay, of Lyons, had the idea of cutting the sympathetic nerve below the superior ganglion. The patient, whose thyroid gland had already been subjected to different operations (exothyropexy and partial extirpation), improved rapidly, and was cured. Jaboulay's first *sympathotomy*, as he called this operation, was supported by the old theory that exophthalmic goitre was caused by an affection within the sphere of the cervical part of the sympathetic nerve. Two of the cardinal symptoms, he says, may be readily explained by the supposition of an intense excitation of the cervical sympathetic, namely, exophthalmos and palpitation. So he performed this operation.

Jonnesco, of Bucharest, not only cut the sympathetic nerve, but resected the whole cervical part on both sides, including the three ganglia (1896). This operation is called *sympathicectomy*. Not only should this very difficult operation be good against exophthalmic goitre, but also benefit idiopathic epilepsy and glaucoma. His supposition is, that the destruction of the whole cervical portion abolishes the irritation in the nerve, which is responsible for exophthalmos, goitre, and palpitation. Destruction, he thinks, prevents exophthalmos only. In February, 1899, he published his results in the *Centralblatt für Chirurgie*. Out of 10 operations for exophthalmic goitre he cured 6 patients. Four were decidedly improved; no death.

In France Jaboulay's or Jonnesco's operations have been performed with good results many times within the last three years. But I do not yet venture to compile the cases and give statistics. Death occurred in a few cases, but the percentage seems not to be so high as in goitre operations. Suffice it to say that the old sym-

pathetic theory is coming to the foreground again. Already Morat (*Presse med.*, 1897) and Dastre (*Compt. rend. soc. de biol.*, 1899) have undertaken physiologic experiments in order to examine whether the surgeons are right. So far Jonnesco seems not to be wrong.

In this country, England and Germany the surgeons have been conservative. They adhere to the thyrogenous theory. Many operations, with about 50 per cent. of good results and 25 per cent. of improvements, have been reported within the last two years in these countries. But always that high death rate of about 15 per cent. All I have learned by perusing the literature, and out of my own experience, induces me to come to the following conclusions:

Exophthalmic goitre should first be treated by the scientific, well-trained physician. I would give preference to a rest cure and a mild hydropathic treatment. But if, after such a prolonged and careful treatment the patient makes no progress or gets worse, becomes intractable, partial thyroidectomy should be proposed. The patient should be told the plain truth and decide herself without being pressed. If the heart is not yet overworked the outlook is better. Local anesthesia is preferable to all other methods. Never use chloroform. Remove at least one-half of the thyroid gland; if possible more.

The surgeon should watch the progress of the new operations upon the sympathetic system. Sympathicotomy is an easy, sympathicectomy a very difficult operation.

581 Orchard street.

DIFFERENTIAL DIAGNOSIS OF THE CONTINUED FEVERS.*

BY M. GOLTMAN, C.M., M.D.

MEMPHIS.

Surgeon to the Shelby County Poor and Insane Asylum and Leath Orphan
Asylum; Physician to the City Hospital.

In discussing the differential diagnosis of typhoid, malaria in all its forms and other conditions in which fever is a conspicuous symptom, it might be well to consider them first from the clinical standpoint, second from the microscopic standpoint, and third from the therapeutic standpoint, wherever this can be done.

* Read before the Memphis Medical Society, August 1, 1899.

Given a case wherein there has been considerable lassitude, weakness, throbbing headache, perhaps a little diarrhea, fever, anorexia, perhaps a nose bleed or two, all dating back only a week or two, and then finding the patient in bed with dull and listless expression (hangdog look), with coated and tremulous tongue, weak and perhaps dicrotic pulse, enlarged spleen, a temperature of 102° or over and which rises daily until its height is reached, with morning remissions and evening exacerbations, together with gurgling in the right iliac fossa, abdominal swelling and meteorism, and a rose rash which appears about the fifth to the tenth day of the disease, and there is apparently no difficulty in diagnosing typhoid fever.

I think this draws a fairly good clinical picture of typhoid fever, and yet I well remember seeing just such a case, in the post-mortem room, whose card read "enteric fever," reveal an acute miliary tuberculosis. The symptoms were passed upon by men recognized the world over as clinicians, but yet the mistake was made, since the symptoms of the two diseases are often almost identical. Hare says: "Typhoid is a peculiar disease." Evidently it is. And when I again bring to your notice the case of enteric fever that I once saw ushered in with acute and violent mania, where the patient, a young girl of 21, was on the point of being sent to the lunatic asylum because she tried to destroy herself and everybody else in sight, having been picked off the fire escape of the hospital just in time to prevent her jumping from it, and when I also recall to your minds the case of "inverted typhoid" that I reported before this Society in 1898, which was masked in its onset by a tertian malaria, after which the temperature and pulse ran a subnormal course throughout the disease, and in which report I stated that much of the pathology of typhoid usually taught was incorrect, which idea was of course scouted, but I can now mention Osler's "kidney typhoid" in support of my contention. Osler also says that he has thrice performed autopsies in cases where the onset of the disease was marked by headache, photophobia, delirium, twitching of the muscles and retraction of the head, and where cerebro-spinal meningitis had been diagnosed, the autopsies revealed enteric fever. He further says that fully one-half of the cases coming under the category of brain fever belong to typhoid fever, with severe nervous symptoms. This is somewhat startling at first glance, but it is in

all probability only too true. From pneumonia, particularly in the aged, and still more particularly when pneumonia complicates typhoid, or vice versa, the diagnosis is exceedingly difficult by clinical means alone. The same is to be said of some cases of ulcerative endocarditis and other pyemic conditions, not excluding those cases of deep-seated suppuration in which chills and sweats are sometimes conspicuous by their absence. When we bear all this in mind, together with the fact that malaria, in its many forms, may mask, complicate and simulate typhoid and other fevers to such a degree that it almost becomes an impossibility to differentiate them from the clinical standpoint alone, it behooves us to recognize and acknowledge that we must look for assistance beyond the powers of nature's lenses and call to our aid the lenses of the instrument maker, as well as every other available diagnostic means. This applies to every section of the globe, but here in the South it is particularly applicable.

According to Musser, fever is due to (1) infections, acute or chronic; (2) inflammations; (3) intoxications. The following is a brief summary:

1. Infections. Zymotic fevers; fever due to ptomaines or toxalbumins produced by action of a parasite.

2. Inflammations—traumatic from an injury. Inflammation of organs, as in pleuritis, meningitis, peritonitis, pneumonia. It is questionable to my mind if fever here is due to the inflammation alone. I think the resulting toxemia is an influential factor.

3. Fever of central origin, as in brain tumor, apoplexy and sunstroke, by disturbing the heat centers.

4. Fevers from auto-intoxication. These are the most puzzling to the physician, and often serve as a cloak that covers a multitude of ignorance.

5. Fever of anemia or starvation. This may account for some of the post-typhoidal elevations usually ascribed to nervousness and auto-intoxication from errors in diet, etc.

6. Fever from puerperal irritation, e. g., teething, adherent prepuce, etc.

7. Nervous fever. These cases are met with in the nervously exhausted and overworked. The fever may last for two months, with a temperature ranging between 100° and 103° F. A local authority would call this "Felix fever," and another local authority calls it X fever. It is frequently seen in nurses.

I only attempt to treat the etiologic factors of fevers, which are indeed almost countless, sufficiently to give them some importance in a diagnostic sense and from a clinical standpoint. To attempt to do more would carry me beyond the limits of your patience.

It might now be well to consider the significance of elevated temperature before attempting to differentiate.

“The significance of a raised bodily temperature from a physiologic standpoint is, that the nervous centers governing heat production and heat dissipation are disturbed by some substance circulating in the blood or by reflex irritation, or perhaps both. The danger of high fever is, that it may cause coagulation of the protoplasm of the heart or vital centers at the base of the brain. * * In some cases (anthrax, etc.) moderate fever probably aids the body in throwing off, or rather conquering, the disease which has attacked it, in three ways, namely, by producing a temperature less favorable to the growth of certain disease germs than is the bodily temperature in health; by increasing cellular activity it may increase phagocytosis and the development of antitoxic materials; and, finally, by virtue of the increased temperature the effects of the poisons may be rendered nil (Hare).”

We may now consider the differential diagnosis.

The differential diagnosis of acute tuberculosis from typhoid:

Symptomatically. They are much alike in the early stages, and there is little to distinguish them. The family history is often of value. The spleen is enlarged in both diseases, but most so in typhoid. The lesions in the lungs in typhoid are at the bases (hypostatic), in tuberculosis oftener at the apices.

Microscopically. Leukocytosis in acute tuberculosis; absence of same in typhoid, except when peritonitis or pneumonia complicates matters; tubercle bacilli. The presence of the Widal reaction and the cultivation of the Eberth bacillus from the blood of the spleen or feces leaves no room for doubt.

Therapeutically. In those cases where the fever is not too high it is wise not to forget the tuberculin test, since this will usually disclose a decided reaction when tubercle is present.

“The febrile movement and other symptoms of enteric fever are often imitated very closely by those of ulcerative endocarditis of a typhoid type. In addition to an irregular fever, there may be

diarrhea, parotites, stupor, and progressive feebleness in both diseases. An examination of the heart may reveal the presence of endocarditis or the existence of some focus of infection, such as a wound or septic process, e. g., osteo-myelitis has been mistaken for typhoid (Goldtdammer), or the fact that the patient is in the puerperium, will, in combination with the sudden development of endocarditis, render a diagnosis possible (Hare)."

Microscopically. We have the presence or absence of the Widal reaction, which bespeaks the presence or absence of typhoid. A leukocytosis consisting of an increase of the multinuclear cells and diminution of the mononuclear cells would indicate endocarditis and other varieties of sepsis unless this is so severe that reaction cannot take place. The diazo-reaction would probably be present in both diseases, and likewise peptonuria.

Therapeutically. Anti-streptococcic serum might show some specific effect in septic conditions.

A fever which rises sharply from normal to 103° or 104° , being preceded by a chill and followed in a very few hours by a sweat, the whole term of acute illness lasting about eight or ten hours, is, in the majority of instances, in this section at least, an intermittent malarial fever, which may be quotidian, double quotidian, tertian, double tertian, quartan, etc.

Microscopically. If malaria, we would find the hematozoon malariae and the absence of leukocytosis, the presence of which would indicate some other disease or complication, possibly a suppurative affection like cerebro-spinal meningitis, in which event lumbar puncture and the cultivation of the diplococcus intracellularis meningitidis will clinch the diagnosis.

Therapeutically. Quinin, properly given, would control the paroxysms if of malarial origin, as well as give rise to leukocytosis.

With a history of dysentery in the presence of intermittent or remittent fever, and after carefully excluding malaria, tuberculosis and cholangitis, liver abscess must be thought of and searched for. Profuse sweats will usually aid in the diagnosis, and hepatic enlargement will always be found, and pressure between the ribs will invariably elicit considerable pain if it is an abscess or a hepatitis. I have recently had a case, however, where neither sweats nor characteristic temperature was present. The blood showed a marked polymorphonuclear leukocytosis and the urine peptonuria, on the

strength of which, together with enlargement and pain, I operated and evacuated about a pint of pus.

It is well also to remember that chills, fever and sweats are sometimes seen in cachectic persons, as a result of pernicious anemia. An examination of the blood cannot but reveal the diagnosis if any doubt exists (*vide Cabot*). It will be well, too, in the presence of doubtful fevers to think of syphilitic fever, in which the therapeutic test, in the shape of iodid of potash or mercury will clear up the diagnosis, and also uremic fever (*Stengel*), in which the patient may lie for weeks in a condition of torpor and unconsciousness, with heavily coated and dry tongue, muscular twitching, rapid pulse and more or less fever. *Osler*, in speaking of the latter, says: "I have known them to be mistaken for typhoid fever and for miliary tuberculosis."

Finally, we come to the "contention fever"—pardon the attempted witticism—the fever which, if it resists quinin and *salivation*, is very often pronounced typhoid in this section of the country where comparatively little typhoid is seen, and in the East, where much typhoid and little malaria, the severer forms at least, are seen, there is a tendency to flaunt the doctrine of "fever resisting quinin not malarial." This is preposterous. I have pointed out, and might say have proved, that we have here fevers that are malarial and resist quinin, no matter how given or in what proportion. Others have done the same thing, and I only mention it here for the sake of adding emphasis to the statement. There is no doubt, however, that mistakes are made both ways in these cases; that is, continued malarial fevers are called typhoids and typhoids are called malarial fevers.

Thayer's table is here useful for differentiation, and I present it in toto, although I take the liberty of expressing my opinion where a difference of experience exists:

Thayer's Table.

REMITTENT FEVER.	TYPHOID FEVER.
Onset generally intermittent.	Onset gradual and progressive.
Irregular remissions.	Regular, though very slight, morning remissions, with evening exacerbations of temperature.
The temperature may arrive at 40° C. (104° F.) within twenty-four hours.	The temperature does not reach 40° C. (104° F.) before the third or fourth day.

Headache rare in the beginning (I find severe throbbing headaches quite frequent, if not the rule)—of a neuralgic character, pulsating, variable in its position and intensity; sclera subicteric from the onset.

The apathetic expression of the face, the dryness of the tongue, and sordes upon the teeth, are not very marked.

Breath foul.

The delirium may come on in the early days; it is recurrent, but changes with the exacerbations of temperature and other symptoms, and may give way to grave symptoms related to other organs, e. g., hepatitis and renal congestion.

If there be pulmonary congestion, the cough and other symptoms come on suddenly; the areas affected change from one to the other lobe or lung, and may disappear and reappear again with varying intensity; dyspnea is very pronounced; circulatory disturbances are marked, even syncope.

There are usually restlessness and anxiety (*jactitatio corporis*).

Peculiar grayish color of skin; sometimes a slight jaundice. (Nearly always some jaundice.)

Herpes common.

Anemia more or less marked early in the course.

No characteristic exanthem; urticaria not uncommon.

At times there may be transient tympanites or ileo-cecal gurgling; they are but slightly pronounced and paroxysmal; diarrhea is slight or absent, and has not the characters of that in typhoid fever. (I find diarrhea frequent.)

No distinct course.

Urine high colored; may show a trace of bile; Ehrich's diazo-reaction rarely present. (I would add here that congestion of the kidneys is here frequent).

Headache from the beginning—permanent, severe, frontal; sclera white.

These symptoms are well marked and progressive.

Breath has a peculiar mouse-like odor.

Delirium appears only when the disease is well pronounced; it is often persistent, and variable only in degree.

Pulmonary congestion is gradual and persistent, always hypostatic (the bases and dorsal surfaces of the lungs); the dyspnea is less pronounced and later in appearing, depending more upon the abdominal conditions (*tympanites*, etc.)

There are usually relaxation, prostration and stupor.

No jaundice.

Herpes rare.

Anemia absent, excepting in later stages.

Characteristic roseola.

Tympanites, gurgling and diarrhea appear slowly, and may become well marked.

Has a fairly characteristic course.

Urine high colored, bile absent, diazo-reaction present during the height of the process.

Blood shows no leukocytosis; eosinophiles not notably diminished; serum does not cause agglomeration of typhoid bacilli (Pfeiffer, Durham and Widal); malarial parasites and pigmented leukocytes present.

Fever disappears under quinin. (This is not always my experience. The quinin seems to modify the fever, but does not always control it).

Is an endemic disease, occurring particularly in rural districts; rarely epidemic.

Lastly, we cannot refrain from the consideration of yellow fever, pernicious malaria, and dengue. A case of bilious remittent fever, so called, occurring during an epidemic of yellow fever, or where this is feared because of its prevalence in the vicinity, is likely to give rise to considerable anxiety. Stubbett's table (from Hare), which we have taken the liberty to modify somewhat, may here serve to exemplify.

Stubbett's Table.

YELLOW FEVER.

Headache, bilateral, frontal and post-orbital.

Temperature and pulse divergent; temperature rarely higher than 104° F.

Congestion of face, eyes and gums early in the disease.

Albumin present in large quantities early in the disease.

Quinin has no effect on the progress of the disease.

Stage of remissions on third or fourth day.

Attacks new arrivals.

Always history of exposure to infection.

Black vomit appears on the third or fourth day.

Hematuria very rarely present.

Blood shows no leukocytes; eosinophiles are diminished or absent; serum causes agglomeration of typhoid bacilli; malarial parasites and pigment absent.

Fever uninfluenced by quinin.

Usually epidemic; prevailing commonly in cities.

PERNICIOUS MALARIA.

Headache, generally unilateral, frontal and temporal.

Temperature and pulse correlative; temperature generally 105° to 107° F.

Congestion of face, etc., never seen.

Albumin rarely present. (This is not our experience here; albumin is frequently found, but is slower in coming and less in quantity).

Quinin has a specific effect if given hypodermatically and early. (We find many exceptions to this statement).

Remission not present.

Generally history of chronic malarial infection.

No history of exposure to infection.

Black vomit appears within thirty-six hours. (We see this but rarely).

Hematuria a marked symptom.

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Liver unchanged. (This is not my experience; it is slightly enlarged and very tender).

Archinard serum test; positive.

YELLOW FEVER.

Cephalalgia and nephralgia are characteristic; constant.

Pulse and temperature divergent.

The slowing of the pulse begins early in the disease.

Congestion of face early in the disease; no edema.

Albuminuria.

Icterus.

Black vomit.

No eruption.

Archinard serum test; positive.

Liver enlarged and tender.

Archinard serum test; negative.

DENGUE FEVER.

Pain most severe in joints and muscles, and is paroxysmal.

Pulse and temperature correlative.

The slowing of the pulse occurs late in the disease.

Rash on the face, followed quickly by edema.

Albuminuria absent.

Icterus absent.

Black vomit absent.

Polymorphous eruption, followed by desquamation.

Archinard serum test; negative.

I have only attempted to bring before you the conditions of fever with which we are most confronted; to do otherwise would take up too much of your time. It is evident, however, that fevers exist which cannot be diagnosed by clinical means alone; and even after bringing to our aid the microscope, the chemical laboratory, and last but not least the therapeutic tests, we may still remain in doubt.

Porter Building.

THE CONTINUED FEVERS OF THE SOUTH—ETIOLOGY AND LABORATORY FEATURES.*

BY WM. KRAUSS, M.D.

MEMPHIS.

Physician and Pathologist to St. Joseph's Hospital; Instructor of Pathology, Memphis Hospital Medical College; Pathologist to the Shelby County Poor and Insane Asylum.

In opening this subject, at the request of the President, I cannot but feel honored at the assignment, while feeling that we are threshing over old straw. While the essay is incomplete, yet I have endeavored to put as much in as little space as possible, there

* Read before the Memphis Medical Society, August 1, 1899.

being other papers to follow. It will be seen that there is little to say about what has been done, but it may be well to indicate what might be done, especially if the profession wishes to hold up its head before the scientific world. The discussions heretofore have been principally limited to the ventilations of pet beliefs without any scientific basis.

We shall first go over some familiar ground on the subject of typhoid fever and its etiology, then take up malaria, and then the consideration of the X, as we say in mathematics.

The bacillus credited with causing typhoid fever was discovered by Eberth in Koch's laboratory in 1880. Like all the colon group it is quite polymorphic, but usually about 1-3 m. in length and about 0.5-0.8 m. in diameter, with rounded ends. It may grow out into long threads, especially upon cooked potato, upon which it shows the characteristic invisible growth. It is very actively motile, aerobic, non-liquefying, and grows very actively upon a variety of media at the room temperature. It can also grow in the absence of oxygen, hence is a facultative anaerobe. It has from eight to twenty slender threads projecting from its enveloping membrane, which are known as flagella. Bouillon cultures twenty-four to forty-eight hours old are in long chains of from two to six bacilli, which gives them a gliding, swimming motion instead of the rolling, wriggling of the short forms, and adapts them well for use in the Widal test. The bacillus does not stain as easily as most bacteria, and is readily decolorized by iodine, as in Gram's method.

Cultural Characteristics. A full consideration of these is out of place here. We will only take up those usually relied upon for differentiation and separation, especially from allied forms. Thus, the typhoid and icteroides have the invisible potato growth, do not grow on 1:7000 formic aldehyde, do not produce indole or coagulate milk, all of which are properties differentiating from colon. The icteroides ferment glucose actively and lactose slightly; the typhoid ferments neither, and the colon both. Upon Elsner's medium the typhoid grows out in twenty-four hours in minute, whitish dots, the colon in larger, dark colonies, the yellow fever more slowly or not at all; all grow on carbolyzed gelatin, the icteroides least. The agglutination test differentiates them best, though both typhoid and yellow fever blood may agglutinate the colon bacillus, which becomes pathogenic in both diseases. The use of the medium

accredited to Hiss has been considered before this Society. Whether we use the method of Chantemnesse and Widal, of Holtz, Thoinot, Parietti, Hazen and White, Theobald Smith, Wurtz, Schild, Elsner, Stoddard-Hiss, Proskauer and Capaldi, the success of the culture depends upon the presence of the typhoid bacillus in the fecal discharges, which is frequently not the case.

Vitality of the Bacillus. It is very susceptible to high temperatures, 60° C. killing it in a few minutes. On the other hand, D'Arsonval has exposed it to the temperature of liquid air (160° C. below zero) without injury.

Sternberg, in his textbook, has the following: "The typhoid bacillus retains its vitality for many months in cultures. The writer has preserved them in hermetically sealed tubes for more than a year, and has found them to develop promptly in nutrient gelatin. Dried upon a coverglass, it may grow upon a suitable medium after having been preserved for eight to ten weeks (Phuhl). When added to sterilized distilled water it may retain its vitality for more than four weeks (Bolton) forty days (Gassebat), and in sterilized sea water for ten days (DeGiaksa). Added to putrefying feces it may preserve its vitality for several months (Uffelmann), in typhoid stools for three months (Karlinski), and in earth upon which bouillon cultures had been poured, for five and a half months (Grancher and Deschamps)."

Pathogenesis. It does not multiply readily in lower animals, and hence the test of Koch is not applicable to it, but the injection of filtered cultures in sufficient quantity into experiment animals will kill them, showing the toxic properties of the organism. Brieger has isolated the toxin, and Pfeiffer has found the blood of patients to have an immunizing influence, but as the toxin resides in the bodies of the bacilli and does not dissolve in the filtrate, immunizing experiments are carried out only with great difficulty. The discovery accredited to Widal is perhaps as positive proof of the pathogenesis of the bacillus of Eberth as any or all of Koch's laws, which must needs fail when animals are not susceptible.

To quote again from Sternberg: "A predisposition to typhoid infection is established by various depressing agencies, such as inanition, overwork, mental worry, insanitary surroundings, etc. And there is considerable evidence in support of the supposition that exposure to offensive gases given off from ill-ventilated sewers constitutes a predisposing cause of the disease."

Mode of Invasion. The bacillus typhosus probably always enters the body by the alimentary canal. It has been conveyed by drinking water, milk, oysters, ice, food infected by flies from contaminated material, etc. Direct invasion through the rectum has been noted from infected clothing, and by contamination from handling the discharges of typhoid patients.

Upon the entrance of the bacillus typhosus into the tissues it at once attacks the lymphoid structures, including the spleen, in which it multiplies, and by its toxin produces both prodromes and subsequent symptoms. This being the case, the presence of some bacilli free in the intestinal tube is not the alpha and omega of typhoid fever. Babes and Sanarelli have shown that it is a disease of mixed infection, the colon and pyogenic cocci being in predominance.

The severity of an attack depends upon the number and virulence of the bacilli, the susceptibility of the patient and his surroundings, and not upon the bacilli that may be free in the bowel.

This brings us to the question of intestinal antisepsis. It may be stated that the weight of scientific authority is to the effect that this has no existence in fact. I can corroborate this from the fact that I have cultivated the typhoid and colon bacilli from the feces of patients who had taken guaiacol, salol, thymol, zinc sulphocarbolate, and other antiseptics. Furthermore, these organisms can be grown upon media containing antiseptic substances in far greater strength than would be safe to give, even if there were not thirty-one feet of gut to disinfect.

Diagnosis. The serum test of typhoid fever is now a well-established procedure, the causes of failure being now pretty well eliminated. In this connection Anders and McFarland, in the *Phila. Med. Jour.*, have summed up the conditions, precautions, etc. From their article I abstract the following: The cultures should be young, so as to contain the long, motile forms. A twenty-four hour bouillon culture taken from a three weeks culture upon agar is best; if too virulent, a pseudo-reaction may result from either normal or typhoid blood; the bouillon must be slightly but distinctly alkaline; if acid, the agglutination may not take place; serum should be preferred, as dried blood cannot be accurately estimated. The conditions are summarized as follows: "The authors find that the Grünbaum-Widal reaction, which, when properly studied, is accurate in nearly 97 per cent. of cases, consists in a loss of mor-

talities and a peculiar clustering of the bacilli in groups, depending upon the fact that a moderately virulent, actively motile, twenty-four hours old culture, grown upon a slightly alkaline culture medium, is acted upon by a solution of blood or serum equaling about one part of the blood or serum to ten parts of water for a period not exceeding one-fourth to one hour, or in a dilution of 1:50 one to two hours."

Abbott says he has found the test to be accurate in 97 per cent. of 10,000 cases tested by him. Stengel, Osler, Wyatt Johnston, Biggs, and others, report similar results.

McFarland recommends that blood be drawn into capillary glass tubes of known capacity, and these crushed in a small vessel with a measured quantity of distilled water. Where the fluid is used in a short time, I have used the following procedure: A puncture is made and the blood drawn into the pipet for white cells of a Thomas-Zeiss counter to the 1:0 mark. Water is then drawn up to fill the bulb, which makes a 1:10 dilution, which can be blown into a sterilized homeopathic vial until used; this can be used as a 1:10 or further diluted by taking so many loopfuls and mixing with water.

It is to be remembered that the reaction may appear late and may be transient, so that several tests may be necessary. This may not serve for early diagnosis, but it is worth something to the patient to know that he has had typhoid fever, and we owe it to him to give him a correct diagnosis. To judge from the divergence of opinions heard, the clinical diagnosis is in doubt in half of the cases, while the Grünbaum-Widal test should be positive in 97 per cent. A previous attack should be inquired into.

Malaria. It is now generally accepted that there are three distinct varieties of malarial organisms, viz.: the tertian, the quartan, the estivo-autumnal. The first of these is characterized by requiring forty-eight hours for the completion of its life cycle; it gives rise to intermittent paroxysms lasting from ten to eleven hours, which recur every other day. The parasite is more actively motile than the quartan, the pigment granules are very much finer, and it breaks up in 16 to 20 segments. The blood cells are larger and paler than in the other forms of malaria.

The quartan plasmodium requires seventy-two hours to complete its cycle, is smaller, with larger and more tardily-moving pigment granules, is more distinct in the corpuscle, divides into from

8 to 10 segments, and the blood corpuscles are smaller and darker than normal (brassy). Infection by multiple groups of either of these will give rise to quotidian, double quotidian, or double tertian paroxysm.

The estivo-autumnal hematozoon gives rise to most of the irregular malarial fevers. It appears to have no well-defined cycle, but this is largely due to the fact that it does not mature in distinct groups, generally speaking; there is, however, some evidence that it matures in the space of forty-eight hours. Most of the tertian fevers seen by me at St. Joseph's Hospital during the last month were infections by the ring-shaped forms of this parasite. This plasmodium may develop into the extra-cellular ovoid and crescent forms.

I have frequently seen a small extra-cellular hyaline or pigmented form, which is actively motile, though I have not been able to make out any flagella. Some of my preparations seem to show a fringe or rim of substance taking the eosin stain around them, indicating that they are not really extra-cellular. They are seen in cases having a general feeling of lassitude with a slight evening temperature. Many such cases had been referred to me for diagnosis for suspected tuberculosis.

With reference to the different opinions on the subject of the varieties of malarial organisms, according to Thayer and Hewetson, Barbacci makes the observation that the year 1885 marked the beginning of two schools: The one, and strange to say the one headed by Laveran, although not generally accepted by other authorities, believes that the malarial parasite is a single polymorphous organism, and that there is a constant relation between the different forms and the various types of fever. The other school, headed by Golgi, thinks that the different forms are different species, and each has its own clinical manifestations. Laveran teaches that this parasite is to be seen in considerable variety of forms, which one can resolve into the four following types: (1) spheric bodies; (2) flagellated bodies; (3) crescentic bodies; (4) segmenting forms or rosettes. He says the crescents are encysted forms, developing from the spheric bodies and showing an absolute resistance to quinin; that they can change into round, ovoid, and flagellate forms, and that there is no relation between the form and the variety of malarial paroxysm. But Golgi determined beyond ques-

tion the close relation between the form and the clinical manifestation of paludism. He also pointed out that the beginning of every malarial attack corresponds to the ripening of a generation of parasites, and that the severity depends upon the number of plasmodia present, that segmentation begins eight to ten hours before the paroxysm and continues during its first hours, all of which was confirmed by Osler in the same year. Golgi also pointed out the difference between tertian and quartan forms. Marchiafava and Celli showed that Golgi was dealing with fever running a typical course; the fevers were never pernicious, and yielded often without, and always with, quinin, whilst the Roman fever pursued an atypical course, and that these fevers were more common in the Campagna in the summer and fall, did not yield readily to any kind of treatment and had a tendency toward becoming malignant, and pointed out other differences. Thayer and Hewetson, confirming both Golgi as to the intermittents and Marchiafava and Celli as to the estivo-autumnal forms, have given us what is now generally accepted in this country. The truth is, as has been said on this floor, by Dr. G. B. Young two years ago, there is much to be learned about the classification of all the forms now grouped under the one name of estivo-autumnal parasite.

Cultivation experiments of the malarial organism, outside of some living body, be it man, animal, bird, or mosquito, has not been yet accomplished.

The best time to find the plasmodia is during a rising temperature, much of the literature to the contrary notwithstanding. The best pictures are obtained by examining fresh spreads, as the motility and other characters can then be made out. To make good stained specimens, the still wet spread on a cover glass is dropped into a watch glass containing a mixture of absolute alcohol, saturated with eosin, 25 c. c.; pure ether, 25 c. c.; corrosive sublimate (20 per cent.) in absolute alcohol, 5 drops. The cover glass is allowed to remain from three to five minutes, removed with forceps and washed in water, stained in a saturated watery solution of methylen blue for one minute, again washed in water, dehydrated in absolute alcohol, cleared in xylol, and mounted in Canada balsam (Gulland).

It is known that the chill corresponds to the time of invasion of the blood cells by the new group of parasites; the nutritive

stage is the stage of fever, and after the sweat the plasmodia disappear from the peripheral circulation. About three hours before the next expected chill the mature organism begins to crinkle at the edges, the pigment collects in the center, and the rosette stage is reached. By an explosive action the cell is ruptured, and the segments are then free in the plasma, ready to invade a new lot of cells. If now, at the daisy stage, quinin is given, it does not prevent the invasion, nor the impending chill, but will prevent the next succeeding paroxysm. This is explained on the ground that they are not then in a vulnerable stage but the quinin will remain in the circulation until the nutritive stage is reached. A single large dose, then, on a rising fever, will definitely break up an intermittent attack from a single group of tertian or quartan organisms. Some undeveloped embryos may fail to enter any red cells at the time and thus escape. At the end of seven or fourteen days they may have incubated enough to again rise to a fever—the well-known seven-day chills. It seems that they must become numerous enough to produce symptoms, but it is not plain why this should take seven days or a multiple of this.

A prominent practitioner in the Delta, anent the supposed definite period of incubation of malaria and the probable inoculation by the mosquito, finds his own observations at variance with this. For instance, a man may expose himself at night, eat indigestible food or fresh fruit, especially watermelon, and in twenty-four hours or less will develop a chill and go into an attack of intermittent fever. How is this compatible with the inoculation theory or the idea of a prolonged period of incubation?

As to whether malaria is air borne or water borne, the discussion and abduction of evidence would carry us too far; ample evidence is at hand to accept both these views. Bignami has positively produced malaria in a subject years away from a malarial district by having him bitten by imported mosquitoes. The period of incubation was exactly seven days. We have malaria here in Memphis, which certainly cannot be accounted for by the water theory. On the other hand, an English Army Surgeon in India noticed, that of two regiments, exactly stationed alike, the one getting its water "up hill" did not suffer from a single case of malaria, while the other was very much afflicted with it.

We come now to the possible coëxistence of typhoid and mala-

ria. We all know of cases having had both infections at the same time, as evidenced by laboratory tests. In all such cases the double infection is recognized by the temperature curve. As to any hybrid form, this is out of the question; an animal organism cannot fuse with a vegetable one. There is a variety of fever, however, which is probably the cause of all the dissension upon this subject of protracted fevers. Some of the essential differential points of this "X" fever are: (1) It does not yield to any amount of quinin; (2) it has no typic temperature range; (3) it has no prodromes; (4) it lacks the bowel lesions; (5) there is no dryness of the skin and the tongue; (6) the sensorium is clear; (7) the appetite remains good; (8) the Widal reaction is absent; (9) there is leukocytosis; (10) there is no eruption; (11) they never die of an attack; (12) they are not immunized by it. The only two cases of which I have been able to obtain blood during the height of the attack did not contain plasmodia and failed to give the Widal reaction; they showed a marked leukocytosis. Blood examinations of both typhoid and malaria usually show a diminution of leukocytes, provided no quinin has been given, and this is looked upon as diagnostic. Dr. Witherspoon, of Nashville, in a private conversation, told me that he believed this to be the keynote to the whole matter. It is highly probable that this fever is neither typhoid nor malaria, nor has it anything in common with either of these fevers. It is probably colon infection or a thermic fever, allied to heat prostration. The only cases I have been able to follow myself clinically were either typhoid or malaria, or a double infection, and were not accompanied with leukocytosis. This matter must be settled by the medical men of the South. It is humiliating to have to confess ignorance upon a subject when the material is at hand.

Some authorities make the assertion that no fever refractory to quinin is malarial; others go further and say that any fever not yielding to quinin is typhoid. This statement contains two palpable errors: (1) a malaria may be refractory to any amount of quinin, as all of us can testify; (2) even if not malaria it is not necessarily typhoid.

I believe the etiology of the protracted fevers of the South can be summed up as follows: (1) Some are purely malarial, and quinin, in the proper dose and at the proper time, will influence the majority of these cases; (2) some are typhoid; (3) malaria may compli-

cate typhoid during part of the time ; (4) some are entirely different fevers, and these we must investigate.

This is why the Grünbaum-Widal test is of greater interest to us than perhaps to the physicians of any other section. It is to be hoped that these cases will not be disposed of, as heretofore, by the rule of thumb. If only 50 per cent. of the cases give a Widal reaction and only few of the remainder are positively malarial, it is certain that we are "up against" another very different fever.

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NATURE AND ART IN THE CURE OF DISEASE.*

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Sir John Forbes, one of the most distinguished physicians of England, after having been actively engaged in the practice of medicine for fifty years, published, in 1857, a small volume under the title of my paper, giving his views on this important subject. His practice began nearly one hundred years ago, and this essay of his was published forty-two years ago—the date of my graduation in medicine. I was advised to secure and read his work, which I did the following year, 1858.

To a young practitioner just starting out in the practice of our profession, the sage and fatherly advice of Dr. Forbes is as valuable today as it was when he penned it more than half a century ago, for his manuscript was written several years before publication.

I do not propose to quote from Dr. Forbes' excellent work to any great extent, but will confine my quotations to but a few paragraphs. He writes as follows:

"In a very early stage of my medical experience I became impressed with the conviction that the most fruitful source of false views, both in pathology and practice, prevalent in the profession, originated in ignorance of the natural history of disease; and all of my subsequent observation, through a long series of years, has only tended to strengthen the impression. * * * Such has ever been the want of trust in nature and the overtrust in art prevalent among the members of the medical profession, that the

* Read before Third District Branch of the New York State Medical Association.

field of natural observation has been to a great extent hidden from them; hidden either actually from their eyes, or virtually from their apprehension. The constant interference of art, in the form of medical treatment, with the normal processes of disease, has not only had the frequent effect of disturbing them in reality, but, even when it failed to do so, has created the belief that *it did so*, leading, in either case, to an inference equally wrong—the false picture in the one instance, being supposed to be true, and the true picture in the other, being supposed to be false. With this impression in their minds, it was scarcely possible for practitioners not to form a false estimate alike of the power of nature and of the power of art, in modifying and curing diseases, underrating the former in the same proportion as they exaggerated the latter. And the consequence has been that diseases have been treated mainly as if nature had little or nothing to do in their case and art almost everything. A principle so false, adopted as the ground action, could not fail to be the source of the gravest doctrinal errors, with practical results of the most deplorable character.”

These statements of Sir John Forbes present not only the true condition of things at that time, but also to a greater or less extent are honest portrayals of the present state of medical practice. It is true the world moves, and many delusions and errors of the past have been removed or corrected by enlightened observation and experience, yet even today the potential value of medicaments is in many instances largely overrated, and credit is given to the action of drugs when the wonderful curative power of nature really restored the victim of disease to health.

Prof. E. R. Peaslee, in an address to a graduating class in the New York Medical College, said: “Gentlemen, sometimes you will have charge of a very important case to which you have devoted the closest attention day and night, without regard to your own personal comfort or convenience. You have thought no personal sacrifice too great to be made by you to give your patient every possible chance for recovery. You have done perhaps all that was possible for human aid to accomplish. And no matter what the result, you felt that you were entitled, not only to remunerative compensation for your untiring services, but over and beyond all financial returns that you should receive what dollars and cents cannot measure—the lasting gratitude of all interested

in the patient. But alas, instead of these just returns, you may be visited with condemnation instead of commendation, and those who should have been your devoted and grateful friends prove to be your hostile critics and implacable enemies. It will go hard, young gentlemen, thus to receive censure instead of blessings upon your devoted head. But," said Dr. Peaslee, "never mind, in the long run it will balance up all right, for sometimes it will happen that you will receive great credit when you did not deserve it."

I recall an incident related by a physician in which he stated that the highest praise he ever received was when called to a case hurriedly that seemed desperate, and he felt that he must act promptly; though he knew not what to do, he took from his pocket a vial, and turning his back to the crowd that surrounded the patient, pretended to drop some medicine into a teaspoon, mixed it with water and gave it at once to the patient, who immediately revived, and the reputation of the lucky physician was at once established.

It sometimes takes but a trifling incident to establish or destroy a physician's reputation. No doubt some of you remember the incident told by a doctor who sought to establish a practice upon an island where he was unfamiliar with the productions of the soil or the habits of the natives. One day he was out walking when he noticed that a young woman in advance of him was frequently expectorating mouthfuls of blood. He followed her to her home, and in the line of what he regarded his duty told the girl's mother that her daughter was in a serious condition, and would not long survive. Knowing him to be a physician, great alarm seized upon the patient and her friends, and despite all the care given her the girl died. The doctor's reputation seemed remarkably established, and his fame spread far and wide, for the fact that a girl in good, robust health should be recognized by a skilled physician as near her death, showed wonderful powers of diagnosis and prognosis. All would have been well had not the doctor very innocently answered the inquiry made him subsequently as to how he knew the girl was going to die. "Why," said he, "I saw her spit blood enough to insure a fatal termination from internal hemorrhage." "But doctor," said the questioner, "don't you know that all the natives chew a nut that colors the saliva red?" Then it transpired that the wise doctor jumped too soon at his conclusions, and that

his opinion had frightened the girl to death. The result was, that he had to flee for his life, else the natives would have lynched him. I presume thereafter he was more guarded in giving a prognosis without a fuller investigation of the case.

While digressing thus from my subject, I wish to state another instance of which I might give many, of the influence of the mind over the bodily condition. Prof. Fordyce Barker told our medical class when I was a student that he was called in haste to see a man reported as dying from hemorrhage of the lungs. He found him in bed, pallid and depressed, the members of his family gathered about him. Dr. Barker secured the history of the case as follows: The man was a down-town merchant; that morning he had gone to his place of business feeling as well as usual, but after visiting a neighboring grocery he found that he was spitting blood. A cab was called and he was conveyed home and Dr. Barker was sent for. Careful investigation finally showed that when the man was in the grocery he ate some prunes and the so-called blood he expectorated was simply prune juice. After this fact was established the man gave up the idea of dying that day, and went back to his place of business.

Antedating this work of Dr. Forbes was an American publication by Dr. Jacob Bigelow, of Boston, in November, 1854, the leading article being an address delivered by Dr. Bigelow before the Massachusetts Medical Society, in May, 1835 (sixty-four years ago), on "Self-Limited Diseases," though the title of Dr. Bigelow's book is "Nature in Disease." Dr. Bigelow, among the many thoughtful and wise comments on this interesting subject, writes as follows: "To discover truth in science is often extremely difficult; in no science is it more so than in medicine. Independently of the common defects of medical evidence, our self-interest, our self-esteem and sometimes even our feelings of humanity may be arrayed against the truth. It is difficult to view the operations of nature, divested of the interference of art, so much do our habits and partialities incline us to neglect the former and to exaggerate the importance of the latter. The mass of medical testimony is always on the side of art. Medical books are prompt to point out the cure of diseases. Medical journals are filled with the crude productions of aspirants to the cure of diseases. The young student goes forth into the world believing that if he does not cure diseases it is his own fault."

Have not we all been there? I often think of the experience of Dr. Sangrado, in the novel *Gil Blas*, whose exclusive treatment was giving his patients large draughts of hot water, and when one of his cases died he knew that it was because he did not give enough of the hot water, and his next victim was compelled to take more. And I am inclined to the opinion that the representatives of Dr. Sangrado are not all dead, but some of them flourish even in our time. But Dr. Bigelow adds, that "when a score or two of years have passed over the head of this young practitioner he will come at length to the conviction that some diseases are controlled by nature alone. He will often pause at the end of a long and anxious attendance and ask himself how far the result of the case is different from what it would have been under less officious treatment than that which he had pursued, how many of the accumulated remedies which have supplanted each other in the patient's chamber have actually been instrumental in doing him any good. He will also ask himself whether, in the course of his life, he has not had occasion to change his opinion, perhaps more than once, in regard to the management of the disease in question, and whether he does not even now feel the want of additional light. Medicine has been rightly called a conjectural art, because in many of its deductions, and especially in those that relate to the cure of disease, positive evidence is denied us. We are seldom justified in concluding that our remedies have prompted the cure of a disease until we know that cases exactly similar in time, place and circumstances have failed to do equally well under the omission of those remedies; and such cases, moreover, must exist in sufficient numbers to justify the admission of a general law on their basis. Nothing can be more illogical than to draw our general conclusions, as we are sometimes too apt to do, from the results of isolated and remarkable cases, for such cases may be found in support of any extravagance in medicine, and if there is any point in which the vulgar differ from the judicious part of the profession it is in drawing premature and sweeping conclusions from scanty premises of this kind. Moreover, it is in many cases not less illogical to attribute the removal of diseases, or even of their troublesome symptoms, to the means which have been most recently employed. It is a common error to infer that things which are consecutive in the order of time have necessarily the relation of cause and effect. It often happens that

the last remedy used bears off the credit of having removed an obstruction, or cured a disease, whereas in fact it may have been owing to the first remedy employed, or to the joint effect of all the remedies, or to the act of nature uninfluenced by any of the remedies."

In illustration of this last statement quoted from Dr. Bigelow, how often does the last physician called to take charge of a case, or as a consultant, receive commendation for a favorable change in the patient, when perhaps he had nothing to do with the result, and that his predecessor in the treatment of the disease should have had all of the credit, whereas he oftentimes receives only censure. Doubtless every one present here today has witnessed or experienced such a state of affairs. I could furnish a vivid picture in illustration from personal experience in my early years of practice, but I will not take the time to present it to you.

In looking for evidence of the curative powers of nature, we may refer first to the diseases of the lower animals where they have not been subjected to any medicinal treatment. Homeopathy, when practiced honestly, in accordance with infinitesimal system, gives us examples in abundance of cases left really to unaided nature and the efficient power of our good mother. Nature carries so many cases of illness to a successful recovery that the physician with the *do nothing* system of faith pellets gets the credit, and that is why those of that sect are frequently such powerful rivals to our *do something* system of practice. We have profited by these illustrations, and have learned to value more highly the curative powers of nature. After passing in review the various sources for observation and for information relative to the influence of nature and art in the cure of disease, Sir John Forbes makes this pronounced and positive statement:

"The one great result obtained from the study of these various authorities is this: that the power of nature to cure diseases is infinitely greater than is generally believed by the great body of medical practitioners and by the public generally. So great, indeed, is this power, and so universally operative, that it is a simple statement of the facts to say, that of all diseases that are curable and cured, the vast majority are cured by nature independently of art, and of the number of diseases that, according to our present mode of viewing things, may be fairly said to be curable by art, the far

larger proportion may be justly set down as cured by nature and art conjointly. The number of diseases cured entirely by art (I of course omit in all these statements surgical art), and in spite of nature—in other words, the number of cases that recover and would have died had art not interfered, is extremely small.”

This may seem to us a most sweeping statement, but coming as it does from such a careful and able observer, it deserves our most serious and respectful consideration. When I chose the title of my paper I did not realize the broad field that it covers, and that the limits required for presentation at this meeting would only permit me to present an outline and some general views upon this important and practical subject. I have not the time to bring before you the long list of self-limited diseases, nor prominently to present those in which the duty of the physician is comprised in a careful observation of the operations of nature and by palliatives, or such agents as shall best aid nature in removing obstructions to the functions of elimination, assist the natural processes in securing the recovery of the patient.

Prominently, at this time, the outdoor treatment of consumptives is superseding all other forms of treatment for this most extensive cause of the mortality of our race. Thus the victim of tuberculosis is given the full benefit of nature's pure air and the vivifying influence of the sun's rays. I recall some verses learned in my childhood that ran somewhat like this :

Are you fond of fevers, of headache and chills?
Then shut yourself up like a monk in his cave
Where all is gloomy and sad;
But would you avoid the dark gloom of disease?
Then haste to the fresh open air,
Where your spirits may kindly be fanned by its breeze,
'Twill make you well, happy and fair.
Throw open the window and fasten it there,
Fling the curtain aside and the blind,
And give a free entrance to Heaven's pure air,
'Tis the light, life and joy of mankind.

I was especially interested in a statement made by Dr. J. F. Clarke, Surgeon 49th Pennsylvania Volunteers, in a letter to the *Philadelphia Medical Journal* of October 29, 1898, entitled, “An Army Surgeon's Experience with Typhoid Fever,” at Jacksonville, Fla. Dr. Clarke says :

“In the division hospital, filled with typhoid fever patients, deaths became frequent. The mortality was not extreme, for tents make the best possible typhoid hospitals. It was surprising to those of us on the hospital staff who had had extensive hospital experience in large cities to see how well desperate cases of this fever progressed in the open tents, despite the wind and rain and necessary crowding, and for a long time a very limited supply of medicine and hospital facilities. The wooden pavilions later built for division hospitals are certainly going to prove a failure as compared with tents for the treatment of typhoid fever.”

This opinion of Dr. Clarke accords fully with my own army experience, which was to me very impressive and conclusive. On the first day of November, 1862, the 137th Regiment of New York Volunteers, of which I was Surgeon, encamped on Bolivar Heights, Va. We were a new regiment, having been organized and mustered into the U.S. service on the 25th day of September, at Binghamton, N. Y., and were sent to Washington, D. C., on the 27th of that month. We were moved from Washington to Pleasant Valley, Md., and, as before stated, were marched through Harper's Ferry and established our camp on Bolivar Heights November 1st. We were 1000 strong, and a robust lot of men. On the 10th of December, just forty days after camping at Bolivar, we broke camp, marched down Loudon Valley, and never again saw our pestilential camp at Bolivar Heights. There were but 650 of us able to march, and hardly a well man in the whole command. We were blighted by a severe epidemic of typhoid fever soon after we arrived at Bolivar Heights, and new cases of sickness, deaths, and transportation of cases to general hospital occurred almost every day. Our camp site had been used by the Confederates or Union troops alternately from the beginning of the civil war, and the soil was evidently saturated with the germs of typhoid fever. More than half of the cases sent to general hospital died, and there were several deaths in the camp. On the march the health of the regiment rapidly improved, and though in subsequent camps the disease reappeared, we never suffered as badly afterward as we did at Bolivar Heights.

And now to show a marked contrast. On the 25th of January, 1863, we encamped on a hillside near Aquia Creek, Va., and on the west bank of the Potomac river. While here we had six men

stricken with typhoid fever. There was a light snow upon the ground, the wind was bleak and cold, and the only protection afforded these sick men was by the low shelter tents, as they lay upon the ground with rubber and army blankets under and over them. The only mode of heating was by fire built outside so that the heat was reflected in the open end of the tent. I made every effort to get these men sent to general hospital at Washington, but without avail. I was directed to care for them the best I could as, for some reason unknown to me, none could be sent at that time to the general hospitals. Presumably they were all filled. My sympathies were greatly stirred over these men, apparently nigh unto death in such exposed quarters, but it proved to be their salvation, as every one of them made a good recovery, when, as before stated, over 50 per cent. of those sent to general hospitals died. After that experience and observation, I said then, and I now strongly reaffirm the statement today, that I would prefer to take my chances of recovery from typhoid fever on a bleak hillside in an open field rather than in the best constructed hospitals of our cities. The poison in the exhalations is diluted and wafted away, and the source of infection from the other cases is avoided.

Dr. Frank Billings, of Chicago, in an address delivered at the opening of the Rush Medical College, September 27, 1898, very wisely stated that "the limitations of medicine in the management of acute infectious and contagious diseases has always been great. The success in the prevention of these diseases has been greater than the healing of those already sick. The discovery of bacteria and the relation they bear to the infectious and contagious diseases has afforded a still greater means of prophylaxis, and made a more rational treatment possible. We have looked upon these diseases as self-limited in duration, self-limited to accord with the life cycle of the invading germ. The *materia medica* does not furnish us a drug which will cut short the disease. The drug strong enough to kill the invading germ is equally deadly to the host. We modify the course of the disease only. We attempt to carry the patient through the illness by hygienic measures, simple food, bathing to modify fever, and by measures to support the patient until the invading army shall disappear. Specific medication is of no value except in the malarial diseases and in syphilis. The limitation of medicine is pronounced."

I apparently digress again from the subject of my paper to refer to a bright article from the pen of Mary Henry Rossiter, entitled, "The Stomach as a Factor in Evolution," in which she pays this compliment to unaided nature: "From the standpoint of hygienic philosophy, it is far more reasonable to conclude that man has descended rather than risen from his first estate. Dieticians have proved that from the beginning of civilization there has been a steady departure from the use of natural foods. Primitive man lived upon simple grains, raw fruits and nuts as they grew on bush and tree. He did not know how to make mince pie and plum pudding or the later *pâte de foie gras* and chafing dish dainties. Primitive man was strong, full of vital power, commanding in stature, and lived to a good old age, untroubled by tuberculosis, appendicitis, nervous prostration, toothache, headache, locomotor ataxia, and a thousand other ills which shorten his life today. Every indication goes to show that while the race has been gradually advancing in knowledge and experience, it has as surely been degenerating physically. All through the ages the progress of the human mind has been checked by the weakness and disease of the body."

This is sound reasoning, and we cannot but assent to its truth and importance. This knowledge is of great value to us, and aids us materially in giving advice to our patients. The better the physician understands the natural laws in health and disease, the better will he be qualified to import wise counsel to those who seek his aid. But my paper has reached its proper limits.

In conclusion, permit me to assure you, my brethren and co-workers in the practice of our noble and beloved profession, that it has not been my purpose to at all minify the study and practice of medicine. Far from it, for to the science and art of medicine we are indebted beyond all possible estimation for the grand sum total of our knowledge of this wonderfully-constructed body which we inhabit, with its most elaborate system of functions, whose contemplation fills the mind of even the most profound student with wonder, love and praise. There is a large field yet open to scientific investigation, notwithstanding the wondrous discoveries during the last half century made by medical scientists. And the more and more that these investigations bring to light valuable information, more and more will we be led to worship at the shrine

of the greatest aid to us in our labors and anxieties—the wonderful curative powers of nature. I have, in this brief paper, chiefly striven to show that we are oftentimes too apt to exalt our art above its proper position as related to the health-restoring powers of the human system. The most accomplished surgeon cannot make a wound heal; he can only approximate the parts so that nature may best or soonest secure complete and perfect union. We must be modest in our assumptions relative to the *cure* of disease, and be content with the honest statement that we may have aided nature in the recovery of the patient.

11 Jay street.

TREATMENT OF POST-PARTUM HEMORRHAGE.*

BY ALFRED MOORE, M.D.

MEMPHIS.

Probably there is no subject in the range of the practice of medicine that is more of a bugbear than post-partal flooding, and probably no other subject has been more freely discussed. One need not offer an apology for bringing such subjects before such an enlightened body; for often in the discussions that follow by those of large experience many new points are gained that are of inestimable value.

Hemorrhage may occur during the third stage of labor, or in the first twenty-four hours of the puerperium, from relaxation of the uterine muscle from numerous causes, from injuries along the birth canal, from ruptured vessels, tumors, malignant growths, the products of inflammation, inversions, placental adhesions, placenta previa, and the retention of placenta and membranes. These last are also very frequent causes of secondary hemorrhage; most important are deficient uterine contractions or uterine inertia.

Etymologically the term post-partum hemorrhage applies to a hemorrhage arising at any time after the birth of the child, and from whatever cause. The term has, however, in its technical sense, come to be restricted to hemorrhage from the uterine cavity, occurring during the first few hours after the child is delivered; in the great majority of instances it takes place before or immediately after the placenta is expelled.

* Read before the Memphis Medical Society, August 1, 1899.

Fortunately for women, severe hemorrhage is not of frequent occurrence; and as the conduct of labor and the management of flooding are better understood, that dreaded accident will become still less frequent and less dangerous.

Spiegelberg has made the statement that almost without exception the physician is to blame for post-partum flooding. This may be too severe a reprimand, but the fact remains that severe hemorrhage seldom occurs with the careful and experienced obstetrician. Often with delivery of the placenta comes a gush of blood, which is quickly followed by complete contraction and retraction of the womb, and there is the absence of the characteristic symptoms of blood loss; this should not be classed as a hemorrhage at all. The writer well remembers a case that occurred two and one-half years ago, which was attended by Dr. Ellett and himself. The uterine contractions were so vigorous that the placenta was driven out with great force, and blood was spattered from my head to my feet; the uterus remained contracted, and the pulse was full and slow. There was evidently no uterine inertia in this case. On the other hand, the same quantity of blood loss might have affected one who was not so vigorous quite differently.

Playfair considers post-partum hemorrhage, both mild or otherwise, the commonest of accidents, but the records of Guy's Hospital only show one severe case out of 2040 labors, and St. Thomas' Hospital one out of 2172 labors, while Veit could only collect five fatal cases from 47,765 labors. These statistics are from obstetricians of large experience, and are probably better results than can be obtained by the general practitioner.

In examining the records of the board of health of this city from January, 1883, to May, 1899, the writer could only find two cases where post-partum hemorrhage was the cause of death. Other deaths might have occurred, but they were not reported as such. This was the rarest cause of death, the puerperal infection trio (puerperal fever, puerperal peritonitis, and puerperal septicemia) being the commonest.

To exhaust this subject would consume more time than this society would allow, and I will now proceed to the treatment.

Prophylaxis is of first importance in the proper conduct of the third stage of labor. If the labor and pregnancy throughout are properly managed, grave post-partum hemorrhage due to its prin-

cial cause will be exceedingly rare. Any tendency toward abnormal relaxation of the uterus, and any increase in the pulse rate, should receive your careful attention. Gentle manipulation of the womb through the abdominal wall and the administration of a dose of ergot will generally suffice. In no case, whether there be any indications or not of hemorrhage, should the fundus of the womb be neglected. An intelligent hand on the fundus can accomplish a great deal of good. If the hemorrhage continue, more active measures should be undertaken—the womb should be kneaded and compressed, and the hand that is free passed into the womb and the contents, if there be any, evacuated. With one hand grasping the fundus and the other in the uterus, you can induce the uterus to contract. A douche of hot sterilized water would also be of great service at the same time. If the firm kneading of the fundus from without and the irritation of the hand and hot water within the womb do not cause it to contract, there need be no time lost by resorting to the legion of remedies or methods which have been used at some time or other, but gauze should be your main reliance, and the uterus packed. This plan of managing post-partum hemorrhage is reliable, and can do no harm when you are prepared to conduct a labor case aseptically. The introduction of an aseptic hand into the uterus for the purpose of removing clots and placenta is not accompanied with any more risk than is the introduction of the hand into the abdominal cavity in a laparotomy.

Many other things that are recommended are of service in causing the womb to contract, others have little or no effect, and still others are positively harmful.

The average medical man, who comes fresh from a college, generally has been drilled in the use of all the remedies that he should use in case that dreadful calamity occurs, and the chances are that when he meets with a case he will decide to use the things that are most inconvenient to get.

The anemia that follows hemorrhage must receive attention and the patient will necessarily be confined to the recumbent position for a longer time. Normal salt solution is a most efficient remedy, and must not be neglected; it is most conveniently administered per rectum. Auto-transfusion may also be tried and is of service. The administration of tonics and food, with an occasional dose of ergot, will follow.

144 TREATMENT OF POST-PARTUM HEMORRHAGE.

The treatment of anemia will often be as troublesome to manage as the post-partum hemorrhage.

Probably the latest treatment for hemorrhage from the surface of the body and also from inoperable cancer of the womb is the use of a 10 per cent. solution of dry gelatin in distilled water, to which is added 2 per cent. of chlorid of calcium. Whether this will be of service in the treatment of post-partum flooding remains for future investigators to determine, as there has been no case treated by it to the writer's knowledge. At no time should we neglect an opportunity of assisting a woman safely through her childbirth, and in the case where the woman has had previous flooding spells or is debilitated from disease, $\frac{1}{30}$ gr. of strychnia administered three times a day for several months before labor has marked benefit.

Forceps timely applied or chloroform properly administered before a woman becomes exhausted from a long, tedious labor will prevent much trouble and save the patient a great deal of suffering.

The writer has purposely omitted many remedies in the discussion, and wishes to call attention in closing to the harmful effects of the iron solutions, of vinegar, and of ice, which have been so extensively used. The iron preparations will control the bleeding, but the remedy in this case is worse than the disease. The womb is left with a quantity of coagula and sloughs, which can only lead to infection or embolism. This remedy has of late been condemned by the highest authorities. Vinegar has been extensively used but is not sterile, and it is a question whether the risk we run of infecting our patient is justifiable. Ice has also been used quite extensively, but we know that germs can also live in ice, and under favorable conditions will be a source of infection.

Conduct your labors aseptically and have a clear idea of just how you are going to manage a case of hemorrhage if it should occur, and have the remedies that are most efficient and convenient at your command.

Randolph Building.

CORRESPONDENCE.

MEMPHIS, TENN., August 10, 1899.

Editors Memphis Lancet:

GENTLEMEN—I have just read with much interest Dr. M. Goltman's article in the MEMPHIS LANCET on the "Communicability of Cerebro-Spinal Meningitis."

I think if the doctor would lay aside all textbooks and forget the teaching of all authorities on this disease, and make a clinical study of the etiology of the cases which he saw during the last epidemic of '98-'99, he could not find anything to bear out the argument that cerebro-spinal meningitis is contagious or communicable in any way. I saw many cases during the fall and winter of '98-'99, and I saw nothing to make me believe the disease was communicable in any degree.

My experience with the disease during the last epidemic clearly demonstrated to me that malnutrition or want of proper food had much to do with the causation of the last epidemic. It will be proper to state here that I believe the atmospheric and barometric conditions have something to do with the cause of the disease, either directly or indirectly. During the fall and winter of '98-'99 I was doing the practice for several large cotton plantations in the swamp of the Mississippi river in Phillips county, Ark. It rained there most of the time during the cotton-picking season, and the negroes could not make money enough to buy anything to eat except salt meat and bread. Many of the negroes had cerebro-spinal meningitis, while I never saw a single case among the whites. There were no white laborers there, the white population being composed of planters, merchants and plantation managers, who, as a rule, had plenty to eat. Those who did not have fresh vegetables and fruits to eat always had plenty of canned goods of every description.

Yours, etc.,

JAS. L. BARTON.

[Dr. Barton no doubt believes that starvation and vitiated bodily conditions generally are predisposing factors in the causation of cerebro-spinal meningitis, although he does not say so, and that

the diplococcus intracellularis meningitidis is the exciting factor. Regarding the casting aside of textbooks and authorities on this subject and studying the etiology of the disease from the clinical standpoint, as Dr. Barton would have us do, it is self-evident from the text of the editorial in question that for once we have had the temerity to do as he directs, as the following extract will show:

“And now, when we admit that the evidence against contagion is far greater than the evidence for it, we cannot be accused of any prejudice pro or con.”

We are not very familiar with the plantation life of the negro, but if it is anything like the hiving existence they enjoy in the city of Memphis, Dr. Barton produces very good evidence of the contagiousness of the disease when he argues that no cases of meningitis occurred among the whites, who were chiefly planters and well-to-do, and that many cases occurred among the negroes, who naturally live in squalor and filth and freely intermingle. It is almost like comparing a well-equipped hospital to an over-crowded barracks. The germ of meningitis, which is one of very feeble vitality, will not thrive in the one because the conditions are inimical to its existence, to say nothing of its propagation; in the other the conditions are favorable for its growth and development, and it is then that we see a most rapid spread of the disease, particularly during campaigns. We confess we have our doubts, just as Dr. Barton has, but we can only see in the argument he puts forth another link in the chain of evidence in favor of the contagiousness of epidemic cerebro-spinal meningitis, and we repeat that if time should prove that we are in error, we will have done no harm and possibly some good.—M. G.]

A NASAL POLYPUS WEIGHING AN OUNCE, AND THREE INCHES AND A QUARTER LONG, SPRINGING FROM THE SEPTUM NASI OF A CHILD OF TWELVE.—Coston (*N. Y. Med. Journal*, August 5, 1899) reports this case as an unusual one on account of the age of the patient, the site of the growth and its size. The pedicle was as large as the little finger, and was torn and cut by the finger nails introduced into the pharynx, and the growth removed mammally. A concise review of the literature is given.

THE MEMPHIS LANCET.

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Address all communications to

THE MEMPHIS LANCET,
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Memphis, Tenn.

EDITORIALS.

QUININ IN MALARIAL HEMOGLOBINURIA.

The *Journal of the American Medical Association* bemoans the fact that it still reads the "assertion" that the administration of quinin in malarial hemoglobinuria aggravates the "symptom," and then *asserts* that very few practitioners in the malarial districts believe that quinin will produce this condition.

The *Journal*, by rules of logic which are naive, to say the least, says: "Why the hemoglobinuria of malarial origin has been singled out among all the other varieties and stated to be increased by the use of quinin, is not clear. Thus we have: (1) paroxysmal hemoglobinuria, and (2) toxic hemoglobinuria, including that due to chlorate of potash, carbolic acid, naphthol, carbon dioxid, and the poisons of infectious fevers, etc." It says further: "The bright red urine observed is not always a hematuria—in fact, a hematuria is the rare exception, for hemorrhages, of whatever nature, are uncommon in all varieties of malaria."

It is very easy to sit on the editorial tripod on the shore of Lake Michigan and, in the above *ipse dixit* style, dictate to experienced men how they should treat a "symptom," of which the editor shows his ignorance by calling it such. Malarial hematuria (one term is as good as another, since both are incorrect) is a pathologic entity,

with a symptom complex all its own.* To place it in a category with other conditions which also have one of the symptoms does not strike the ignorant swamp doctor as good logic.

Now, to begin with, the form of malarial fever, accompanied by bright-red urine, we denominate hemorrhagic malarial fever. There is a distinct hemorrhage, and it is most effectually treated with quinin, and rationally so, because the malaria is in an active form and requires the classic remedy for its removal. Not so in the other condition; here the bulk of the color is due to methemoglobin, the urine is black or the color of port wine, and, the *Journal* to the contrary notwithstanding, there is always some blood present. In this condition the malarial organism is either already absent or is rapidly disappearing from the blood.

The symptoms of icteric methemoglobinuria of malarial origin are about as follows: After a variable history of previous intermittents, treated *with* quinin, the patient is suddenly taken with a chill, lasting from a few minutes to an hour, the thermometer indicating from 101° to 106° , usually about 103° . This is followed by no increase of temperature and absolutely no sweating. After a short time, from a few minutes to an hour, the patient will pass, with great vesical tenesmus, from 30 to 300 c. c. of dark-colored urine; if the quantity is small it is inky-black, and the prognosis is bad. The urine is highly albuminous, and contains a variable number of blood discs, mostly bleached out; the specific gravity is from 1025 to 1040. If the patient is still under the influence of quinin, a second or third rigor may appear, without any periodicity, and each additional dose, with mathematical precision, will bring on a paroxysm, and each paroxysm is followed by darker urine, but if no more rigors appear it will gradually clear up. The patient has an anxious facies, rapid, sighing respiration, a rapid, feeble pulse, and more or less nausea. In from six to ten hours after the onset, active vomiting appears, which is projectile, the skin becomes markedly jaundiced (darker than obstructive jaundice), the bowels are obstinately constipated, and the shock becomes more marked. The blood in the beginning may contain from three to four million red cells, some plasmodia, and there may be seen some phagocytosis. In twelve hours the count may be one and a half million, and the plasmodia

* Vide MEMPHIS LANCET, December, 1898.

may have disappeared; even at the autopsy they may be absent in the internal organs.

In favorable cases, after sharp elimination, all the symptoms gradually disappear, the stools, which were at first black and tarry, become lighter and of a golden-yellow color, the urine is voided frequently, becomes more dilute, and contains epithelia and all kinds of casts. In fatal cases the rigors continue, the patient becomes delirious, suppression sets in, and he dies with "uremia." Or, there may be amelioration of symptoms, but with suppression, the patient will feel well and will not believe that he is certainly doomed, and may live eight days after complete suppression. In some few rare cases the plasmodia may persist and give rise to a febrile movement; in such we use methylen blue, some preferring sodium thiosulphate.

Now, the writer will tell the learned editor of the *Journal* a secret: he has never seen a case treated with quinin recover; on the other hand, by the eliminative treatment the majority of cases make a rapid recovery. This is no editorial bombast, but can be attested by thousands of swamp inhabitants. If a malarial infection is promptly and scientifically treated with quinin this peculiar disorder can be positively prevented, but the dilatory and improper use of it in the face of a malarial cachexia will certainly bring on an attack of methemoglobinuria in a susceptible individual.

The writer has seen several cases of quinin methemoglobinuria; it has no existence apart from malarial cachexia. The editor of the *Journal* can find any number of such cases in the Mississippi Valley, provided he has money enough to induce a subject to take a dose of quinin; they generally take arsenic. It seems to be a chronic condition. We admit that we do not understand it, but know, however, that in chronic malaria the hemoglobin percentage falls after quinin is exhibited, just like the pulmonary effect of a mercurial inunction in secondary syphilis.

PURE MILK.

As has been noted in the *LANCET*, the Board of Health is waging active and fruitful warfare on vendors of impure and poor milk. The standard set is that milk shall contain not more than 88 per cent. of fluid and not less than 12 per cent. of solid matters, besides

containing an adequate amount of butter. Many samples examined by the city chemist have fallen short, others have been manifestly watered, many are dirty, not a few have had some preservative, usually formaldehyd, added to prevent decomposition, and at least one sample contained pus and blood from an abscess on the cow's udder. The cases are tried in the police court, and one test case was appealed and won by the Board of Health. There is probably no line of activity along which the authorities can attain quicker or surer results than on this, and it is a source of gratification to all the citizens as well as physicians of the community to see it pushed so aggressively. The actual reduction of infant mortality thus attained is difficult to estimate, but no one doubts that a reduction has been attained. The Board of Health may be sure that it has the hearty sympathy and approval of the medical profession and citizens as well in this most praiseworthy and extremely necessary work.

THE TRI-STATE MEDICAL ASSOCIATION.

The next meeting of the Tri-State Medical Association of Mississippi, Arkansas and Tennessee will be held in this city, November 14, 15 and 16, 1899. Among the interesting features will be reports upon the progress of medicine by the following:

Medicine—Frank A. Jones, M.D.

Materia Medica and Therapeutics—Edwin Williams, M.D.

Surgery—E. A. Neely, M.D.

Gynecology and Obstetrics—W. W. Taylor, M.D.

Ophthalmology and Otology—E. C. Ellett, M.D.

Laryngology—Richmond McKinney, M.D.

These meetings continue to grow in point of number in attendance, and the enthusiasm which marks all the meetings of the Tri-State Medical Association of Mississippi, Arkansas and Tennessee has frequently been the occasion of comment. The meeting promises to be an unusually large and interesting one.

REPORTS OF SOCIETIES.

PROCEEDINGS OF THE MEMPHIS MEDICAL SOCIETY.

Regular Meeting, August 1, 1899.

The President, Dr. B. F. Turner, in the chair.

Present were Drs. Hall, DeLoach, Smythe, Henning, Pincus, Webb, Barton, Stanley, Reilly, Harkness, Venn, Gardner, Sale, Goltman, Rice, Kane, Krauss, Francis, Williams, Holder, Ellett, Turner, Buford, Hughey, Moore, and H. B. Sanford.

Dr. Wm. Krauss read a paper on *The Continued Fevers of the South—Etiology and Laboratory Features*. (See page 122.)

Dr. M. Goltman read a paper on *The Differential Diagnosis of Continued Fevers*. (See page 114.)

Dr. E. P. Sale said, in regard to *Treatment of Typhoid Fever*, we have no specific. A clean room and confinement to bed are necessary, a trained nurse desirable. There are three plans of treatment: (1) The Brandt method of placing the patient in a tub of water at a temperature of 64° F. as often as the fever goes to 102°. Early in the disease the patient may step into the tub, later he is lifted. He remains in from fifteen to twenty-two minutes, being rubbed during the bath. (2) Mixed treatment, or the use of cold water externally by packs, sponging or sprinkling, and occasionally antipyretics. (3) The specific treatment, such as that advocated by Woodbridge. He is not pleased with the last plan, since intestinal hemorrhage follows it quite often. The mixed plan is most suitable for private practice, and Dr. Sale uses it by laying patient on an inclined cot covered by a rubber sheet, cool water is poured on the trunk, and the temperature thus gradually reduced. He uses intestinal antiseptics, generally a mixture of sulphocarbolate of zinc, hydronaphthol and calomel, every three hours. For diet he allows milk, koumiss, broths, and, during convalescence, eggs, milk, toast, etc.

Dr. B. G. Henning said that twenty-five years ago we had no typhoid here, and even now we have very little, and that is mild, with low mortality. He seldom sees the characteristic facies of

typhoid. At this time there is much fever in Memphis, the cases showing high temperature and abdominal tenderness. In the cases not typhoid this is probably due to a catarrhal enteritis, and iliac gurgling is also often present. If we can be sure of the eruption, that of typhoid is pathognomonic. Diarrhea is not present in many cases at this time. We usually treat these cases as malarial, with calomel and quinin. He regards calomel as an excellent intestinal antiseptic, by virtue of the bile which it causes to be produced. He follows the calomel with the bichloride, and regards this line of therapy superior to that by other so-called intestinal antiseptics. Temperature is best controlled by water—antipyretics being sparingly used, since they are depressants. In diet he varies very much. Tomato juice or stewed tomatoes answer well, but of course milk, broths, etc., are used.

Dr. S. E. Rice thinks that nine-tenths of our fevers are malarial and one-tenth typhoid. He does not recognize a third fever, but thinks there are cases in which the plasmodium has disappeared but a malarial intoxication persists. In fevers lasting over twenty days he almost always gets the Widal reaction. Cases of shorter duration are due to autointoxication or uneliminated malarial poison. The Brandt treatment has certainly lowered the death rate in typhoid. He finds that the so-called "X fever" will yield in nine to thirteen days to mercurials, antiseptics and eliminants.

Dr. D. M. Hall sees cases of mild continued fever—the patient not sick enough for typhoid—which are benefited by free purgation.

Dr. F. D. Smythe thinks the diagnosis by clinical symptoms is often difficult. He thinks we have a good deal of mild typhoid here. All infectious diseases are growing milder. He regards the tremulous tongue and dicrotic pulse as constant signs of typhoid, and, in treating the disease, aims to keep down the temperature, stimulate the heart, and feed the patient. He finds buttermilk the best article of food.

Dr. G. G. Buford said the diazo-reaction was of no value in diagnosing typhoid, since it is present in septic conditions and the exanthemata. He is under the impression that the Widal test is not pathognomonic. He has never seen a typical case of typhoid, and does not think we have it here. He relies on the water treatment and liquid diet in managing continued fevers, and has only seen one death from this disease, and that was from hyperpurgation.

The President thinks our "slow fevers" are often septic, but has seen, post-mortem, the characteristic lesions of typhoid many times. Enteric fever is by no means always typhoid.

Dr. Krauss does not think we have much typhoid here. Typhoid will give the Widal test in ninety-seven per cent. of cases, and no other sign is so constant. Cases that are not typical, do not give the Widal reaction, and no plasmodia exist in the blood, must be cases of a third fever.

Dr. Goltman thinks that more extensive bacteriological study of these cases will clear up the subject. If the men who have the practice and the ability to throw light upon this subject will not do so when the means, in the shape of a well-equipped bacteriological department, is at hand, those who are not fortunate in having these advantages cannot expect to do so. Not only will the bacillus coli become pathogenic in typhoid and yellow fevers, but it may and does become so in almost any depressed or vitiated condition, as well as inactive inflammations, like appendicitis. There is not only an individual, but also a family, predisposition to the disease. Acid drugs furnish a favorable field for bacterial growth (typhoid), for the reason that it grows better on acid potato than on alkaline or neutral, and the best medium (Elsner's) is acid. Errors in technique may explain differences of opinion in regard to the Widal test. Dock says the cycle of relapse in severe malaria in Cuba is five days, not seven, but this is not the case here. Dock gives quinin according to the Bastianelli method—that is, as the temperature is falling. Baths may be conveniently given by laying the patient on a rubber sheet, drawing up the ends and tying them in a knot, and the sides to form a trough, and sprinkling the water on the patient from a sprinkling can; both the pressure and temperature of the water can then be easily regulated. Antiseptic drugs irritate the already inflamed intestinal mucosa, and are not desirable. Nor are animal broths advisable, since they furnish the most excellent media for bacterial (typhoid) growth. Page starves his patients, gives plenty of water, and reports excellent results. Typhoid is seemingly milder now, and may run its course in fifteen days. Calomel is a biliary sedative, according to the latest researches.

Dr. Sale recognizes three fevers in this locality, and thinks there is a good deal of typhoid here. Water has the same effect

applied externally, no matter how it is applied. Animal broths are valuable, in spite of theoretical objections.

Dr. Henning has taught that calomel is a biliary sedative, and again that it is a stimulant. He is not sure which is correct. He does not question the accuracy of the microscope, but the ability of some of the men who do pathological work. Thompson, in his "Practical Dietetics," and many other authors, condemn animal broths as unsuited for diet in typhoid, but practically it is almost impossible to do without them.

PROGRESS OF MEDICINE.

SOME REMARKS ON TYPHOID FEVER AMONG OUR SOLDIERS DURING THE LATE WAR WITH SPAIN.—Vaughan (*Am. Jour. Med. Sci.*, July, '99) gives the results of observations made by himself, Reed and Shakespeare, who acted as a committee appointed by Surgeon-General Sternberg to study the causes and the spread of typhoid fever among the troops in the various camps within the United States.

All the larger camps were inspected, including Camp Alger, the camps at or near Fernandina, Jacksonville, Huntsville, Chickamauga Park, Knoxville, Wyckoff and Meade. The water supply, quality and quantity of food, nature of soil, space allotted, arrangement and size of the tents and number occupying them, the location of sinks with reference to the mess tents, the disposition of fecal matter and garbage, etc., were inquired into. The hospitals and methods of disinfection in them were studied, and also the records in the office of the Surgeon-General. It soon became apparent that no scientific method of diagnosis had been practiced, and steps were at once taken to do this. Competent men equipped to make blood examinations were at once assigned to duty, and it soon developed that, although malaria had been diagnosed in most instances, "malaria was a very rare disease among those troops who remained in the United States." At Camp Alger not a single blood examination showed plasmodia. Dr. Dock found one case at Chickamauga and one at Camp Meade; the former had had malaria at home in Arkansas before enlisting; the other belonged to a Pennsylvania regiment which was from a camp on the banks

of the Potomac. The 158th Indiana, 6th Ohio and 1st West Virginia were encamped side by side at Chickamauga as one brigade. The reports show that malaria prevailed in the Indiana regiment from May throughout the summer. There were no cases in the Ohio regiment in May, 3 in June, 11 in July, 103 in August, and 203 in September. In the West Virginia regiment malaria first appeared in August, when 108 cases were reported.

This remarkable mode of development, says the author, is not in accord with any known epidemiological facts concerning this disease. In the Ohio records 273 cases are set down as malaria. Sifting these cases according to the length of the illness, 66 might have been as well recorded as febricula, 148 were still sick on October 31, leaving 59 of completed malaria, among which there are quoted 12 deaths, a high rate for "mild, remittent malaria." The author and his associates therefore conclude that practically all of these cases were typhoid fever, because, 1, the uneven distribution of "malaria" among regiments camped side by side: 2, some of the surgeons recording their cases as malaria, state that typhoid fever prevailed in the regiment; 3, the results of several hundred blood examinations showed that malaria was a very rare disease among these troops; 4, these cases were uninfluenced by large doses of quinin; 5, the mortality of the so-called protracted malaria equals that of typhoid fever.

The study of the regimental sick reports showed that the number of cases of "malaria" in some regiments corresponded to the number of typhoid in others. Other names were used to cover up typhoid fever; there was 15 per cent. of deaths from "prolonged indigestion"; some were diagnosed as dengue. That dengue should have prevailed in one regiment only among the 60,000 troops at Chickamauga is too absurd to receive serious attention. Typhomalaria and continued fever were names on the records.

As to the origin, the author is able to state that some cases had developed in regiments before they reached the national camps. "This aversion to calling typhoid fever by its right name seems to exist among the medical officers in all armies; the German medical officer often calls the disease 'gastric fever,' and this term appears now and then in the records when the surgeon happens to be a German. The French call it 'manœuvre fever.' I am inclined to the opinion that medical officers often are led to suppress the diag-

nosis of typhoid fever for fear of the alarm that it will give the patient and others."

As to the mode of spread, the investigation of drinking water resulted negatively in the majority of instances. Soldiers and residents generally used the same water, and yet the latter had no typhoid fever. The method of disposing of the fecal and urinary discharges was found to have the most bearing upon the spread, since each method of disposal had a mortality rate of its own; indeed the most potent factor in the spread of typhoid fever at most of the camps was camp pollution with infected fecal matter. Where pits were used, flies swarmed over the infected fecal matter and then walked over the food at the mess tents. In many of the regimental camps fecal matter was deposited about the camp on the ground; in some camps at Tampa the sinks were overflowed by the rains, and fecal matter floated through the streets of the camps; paper soiled with fecal matter was blown about the camp. In some instances where a regiment occupied the site vacated by a previous regiment, the second command found themselves in the filled sinks of the former regiment. One Pennsylvania man was found attempting to run the guard by getting into a water barrel on its way to the spring from grounds that could not be traversed without soiling the shoes with fecal matter; clothing, tentage and blankets were doubtless similarly infected. The milk supply was not found likely to have been a frequent carrier of infection.

Some recommendations are made to prevent the introduction and spread of fever in camps, and are followed by tables which served to make up the conclusions, of which the following is a synopsis:

a. A regiment thoroughly infected with typhoid fever does not lose the disease by changing locality, even when going to a perfect site and leaving its sick behind.

b. If a regiment be moved before the infection has become marked, typhoid fever may disappear or at least decrease.

c. Apparently a sea voyage of some days or weeks might rid a command, not widely infected with typhoid fever, of the disease.

d. A regiment thoroughly infected with typhoid fever does not lose the disease or lessen the number of cases after a short voyage at sea.

THE TREATMENT OF SUMMER DIARRHEA IN INFANTS.—Chapin (*Med. News*, July 25, 1899) divides this into preventive, dietetic, and medicinal. As causes, are mentioned mistakes in feeding, too frequent application to the breast or bottle, improper preparation and faulty composition of artificial food, the depressing effects of hot weather, etc. Hence the preventive treatment must be directed to correcting these errors. The city authorities should keep the streets clean, supervise the milk supply, and plant shade trees, which have a great modifying influence on the temperature. In the domicile, extra cleanliness should be exercised, food must be promptly removed after a meal, the milk is preferably Pasteurized as soon as delivered in the morning, then properly diluted. A bottle-fed baby should take its nourishment relatively more dilute, and barley or other cereal added, to more finely divide the curd. The idea that young infants cannot digest cereals is erroneous. Infants may be allowed to play in the bath during the hottest part of the day, and should have on only one garment, to allow freedom of movement and circulation of air. Younger infants should be frequently sponged with water and vinegar, or with a little alcohol added.

As soon as the first vomiting occurs, indicating a dyspeptic condition, all food should be at once withheld; if this must be for several days, mutton-broth, free from fat, thin gruel made from wheat flour and cold whey, egg albumen and water, with perhaps a little aromatic spirit of ammonia added, may be given. When the acute symptoms have subsided, very dilute milk may be tentatively given. This can be curdled with rennet, so as to divide the curd as finely as possible without souring.

The medicinal treatment assumes less importance in direct proportion as the preventive and dietetic management are carefully followed. If vomiting is persistent, frequent drafts of tepid water may be given, which will wash out the stomach; the bowel can be cleansed with the colon tube. Calomel, $\frac{1}{10}$ gr., every hour for six doses, or a single large dose of castor oil, if the stomach will retain it, is beneficial. Subnitrate of bismuth is preferred by the author, in doses of 10–20 grains every two to four hours for an infant of from 6 to 12 months old. Most of the so-called antiseptics are irritating and cannot possibly accomplish what is claimed for them. Small doses of aromatic spirit of ammonia, 10 to 20 drops, well diluted with water, stimulate the mucous membranes and refresh

the baby. Opium should only be given alone, to meet special indications, such as rapid peristalsis, profuse glandular secretion, but only after the bowel has been thoroughly cleansed.

QUININ IN MALARIA.—Geo. Dock (*Jour. Amer. Med. Assn.*, July 29, 1899) discusses at length the use, dose and time for administration of quinin in malaria, and is led to the following conclusions:

In a tertian or quartan intermittent, or any combination or duplication of these, quinin should be given in the decline of the paroxysm if possible; or not later than at the end of the apyrexia. The difference depends on the time the patient is seen or the diagnosis made. The dose should be given at one time, or in parts at short intervals, in such a form that absorption may be confidently expected. I have found it very satisfactory to give the full dose in the form of the hydrochlorate, in capsules, followed by 15 drops of dilute hydrochloric acid. In patients who have been unable to retain other preparations, I have been successful by giving three five-grain capsules half an hour apart, with a small dose of dilute hydrochloric acid after each, with directions to repeat in half an hour if any dose was vomited.

In an ordinary single infection, when the drug is given in the decline, there will not be another paroxysm. In double infections there may be another paroxysm, often milder than the preceding. If there is a rise of temperature of more than a degree, or if the blood shows parasites, a second dose should be given, also in the decline, and if necessary even a third or more. Few cases require more than three. After the temperature falls no quinin need be given for the specific effect, and if it be used as a tonic not more than two grains three times a day should be taken. Other remedies may be used as indicated, the indication for iron being controlled if possible by an expert examination of the blood besides that of the patient in general.

The evidence of the decline of the temperature is best based on the thermometer, used every hour after the chill, but in case the characteristic profuse sweating occurs, it is a sufficiently accurate guide, and the great changes in the body following sweating probably assist in the absorption of the drug.

In the remittent or estivo-autumnal fevers, the intervals are not so clearly defined as in the tertian and quartan infections. If they

are, the decline of the fever can be recognized by careful use of the thermometer, or by the improvement in the subjective sensations. Very often in these cases the parasites become mature at times varying widely, so that not only is the curve difficult to interpret, but the parasites are not equally influenced by the remedy. Very often, too, the symptoms are so alarming, or the number of germs found in the blood so large, that immediate treatment seems necessary. In such cases the quinin should be given in doses of five to ten grains, according to the severity of the case, at intervals of four to six hours, until a marked remission occurs, and then the daily intermittent dose be given until the fever disappears, or, better, until the condition of the blood shows that quinin is not indicated.

Relapses. The treatment of the relapses of malaria is a matter of importance. Except in mild cases, a return is to be expected and guarded against. This is a fact long known but apparently often forgotten. Patients are often aggrieved to find that the "dead-sure" prescriptions of their doctors—usually polpharmaceutic marvels—have not stopped their chills for all time, as they were led to expect.

The relapse often takes place on the seventh day or some multiple of it, either fourteen or twenty-one days, or later. In severe infections, it often comes earlier, and in the relapse of Cuban fevers the fifth day or the fourth after the last fit may see the return of a paroxysm. The cause of the relapse is not difficult to explain. The parasites are scotched, not killed, and only reach sufficient numbers to cause another paroxysm after a lapse of time. They can be found, by careful search, before the day of the paroxysm, and they sometimes cause slight elevation of the temperature in the days preceding the relapse. Golgi's claim that relapses are less frequent in cases treated according to his plan than if the drug is given in the decline, must have many exceptions. It is therefore advisable to give quinin at intervals after the paroxysms have stopped, even if his method is used. The interval in ordinary tertians should be seven days, in more severe cases five days. In this way we not only lessen the danger of relapses, but we also cause a discontinuous or intermittent sterilization of the blood and hasten the complete recovery of the patient.

OTITIS MEDIA AND EARACHE IN LOBAR PNEUMONIA OF CHILDREN. Meltzer (*The Philadelphia Med. Jour.*, August 5, 1899) in the conclusion of his article brings out the following points:

1. Otitis media is an extremely frequent disease in children, especially in poorly-nourished ones.

2. Broncho pneumonia is very frequently complicated with otitis media.

3. In lobar pneumonia of children purulent otitis media is at least very rare, possibly because the pneumonia by its hyperleukocytosis acts as a derivative upon the otitis.

4. Many cases of lobar pneumonia begin with an earache which disappears gradually.

5. The hypothesis is offered that possibly this is only a sympathetic pain of the chronically inflamed drum.

6. In offering this hypothesis the idea is introduced of a summation within the central organ between the effects of an abrupt and of a continuous stimulus, a conception which might prove to be fruitful in pathology, in which all the chronic and many acute inflammations are the seat of such continuous nerve stimulations.

VAGINAL COLPOTOMY IN THE TREATMENT OF PELVIC DISEASE.—Glass (*Medical News*, August 5, 1899) summarizes the following as the advantages claimed for vaginal as against abdominal section:

(1) A preliminary or exploratory vaginal section is always war-rantable. (2) Drainage when necessary is more free and natural. (3) There is less danger of extending infection. (4) The limited peritoneal field exposed and handled reduces to a minimum, pain, shock, and intestinal paralysis, frequent sequelæ of suprapubic abdominal section. (5) Post-operative nausea is lessened, and movements of the patient are less constrained, contributing much to her comfort and welfare. (6) Vaginal section may frequently be performed when the condition of the patient, especially in abscess cases, would interdict any other procedure. (7) The danger of hernia through the scar is practically *nil*. (8) Recovery is quicker. (9) The mortality, as calculated from all reported cases, is materially lessened.

The contraindications for the vaginal operation are: (1) An unusually small or septic vagina. (2) Such fixation of the uterus that it cannot be drawn down, or such enlargement of the organ that operations on the adnexa, when desired, cannot be carried out.

- (3) Evidences of tubercular degeneration or appendicular disease.
(4) Carcinoma with involvement of the uterine ligaments or iliac glands. (5) Cases of pelvic hematocele with active non-circumscribed hemorrhage.
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NEWS AND NOTES.

DR. M. B. HERMAN returned from Atlantic City on the 10th.

DR. ROBT. H. MITCHELL spent the last two weeks of August in Michigan recuperating.

DR. A. G. SINCLAIR left about the middle of August for a two months' vacation in the East.

THE *Columbus Medical Journal* has a new editor, Dr. J. U. Barnhill having been chosen to succeed Dr. J. E. Brown, who recently resigned.

DR. E. D. MITCHELL has associated himself with Dr. W. W. Taylor instead of with Drs. Mitchell & Maury, as announced in the last issue of the LANCET.

DR. A. RAVOGLI, of Cincinnati, a contributor to the LANCET, and for a long time the Italian consul in Cincinnati, has been made cavaliere by King Humbert of Italy.

THE Philadelphia Board of Health has placed at the district police stations a supply of antitoxin, to be furnished free to physicians for use in their practice among the poor.

DR. P. M. FARRINGTON, formerly Superintendent of the City Hospital, who is now taking a post-graduate course in ophthalmology and otology in New York, will return to Memphis in October, and will associate himself with Dr. J. F. Hill in the practice of that specialty.

THE appearance of yellow fever at the Soldiers' Home, Hampton, Va., will put the whole South on the *qui vive*. Fortunately the situation was well handled by the United States Marine Hospital Service, and there was practically no spread, and the outbreak was soon "stamped out."

THE International Conference for the Prophylaxis of Syphilis and Venereal Diseases, and also for the Study of Methods for the

Control of Prostitution, will be held in Brussels on Sept. 4th *et seq.* Papers will be read by Drs. Fournier of Paris, Neisser of Berlin, Finger of Vienna, and others. A large committee has been appointed to investigate conditions of prostitution in their respective countries. Dr. Isadore Dyer, of New Orleans, will represent the United States. Dr. Dubois-Havenith is the Secretary-General of the Conferences.

THE City Council has elected Dr. Stephen E. Rice to the position of Gynecologist on the staff of the City Hospital, made vacant by the resignation of Dr. R. B. Maury. Dr. Rice is a graduate of the University of Pennsylvania, class of '94, and a former resident physician in St. Agnes' Hospital, Philadelphia. He is at present one of the visiting physicians to St. Joseph's Hospital, a co-editor of the LANCET, and an associate of Drs. Mitchell & Maury. Dr. Rice's election, while probably somewhat of a surprise to himself and his friends, is a deserved compliment to one of the most competent and conscientious of the younger members of the profession.

THE *St. Louis Courier of Medicine* has resumed publication, and from the character of the first number, the profession is to be congratulated on the fact. Drs. Nicholas Senn, Ludwig Brewer, Roswell Park and A. J. Steele are the contributors to this number, which is of unusual excellence. The editors promise a clean and ethical journal, and propose to maintain the journal in a style which we are sorry to say is not that which is at present most followed by the other St. Louis journals. The LANCET gladly welcomes a journal whose moral and ethical tone is as high as its own, and assures the *Courier* that its efforts in that direction will meet with the warm support of the profession.

THE Pennsylvania State Board of Medical Examiners have published the following tabulated statement of the result of their spring examination:

Colleges	No. Examined	No. Failed	Per cent. Failures	General Average
University of Pennsylvania.....	143	1	0.7	86.00
Women's Philadelphia	28	...	.....	81.22
Medico-Chirurgical	93	15	16.3	79.94
Western Pennsylvania	46	7	15.2	79.01
Jefferson.....	34	3	8.8	78.24
Miscellaneous	74	22	29.7	76.31
Baltimore Medical.....	7	4	59.1	72.84
General average.....	425	52	12.2	80.94

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CLINICAL NOTES.

AN EFFICIENT ELIMINANT.—Tongaline has been prescribed constantly by physicians during the last twenty years for the various forms of rheumatism, neuralgia, grippe, nervous headache, gout, sciatica and lumbago. Every physician must be favorably impressed by the formula for Tongaline, and its record of remarkable cures has led many of them to declare Tongaline to be a specific for certain conditions. The action of Tongaline is rapid and always beneficial. In the first place Tongaline banishes pain. This is the first thing essential for a cure, although it constitutes only a small part of the cure. The real cure follows when the poisonous waste materials which have caused the disease are separated and eliminated from the body by the stimulating action of Tongaline upon the liver, the bowels, the kidneys and the pores. The anodyne effects of Tongaline are not based upon morphin or opium, since it contains no narcotic. All the ingredients are eliminative, and their action is so harmonious that the disease is corrected in many instances without the patient being aware of the action of the medicine, which is followed by no disastrous or unpleasant effects. All the salicylic acid used in Tongaline is made in the laboratories of the proprietors from the natural oil of wintergreen.

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a palatable and nutritious liquid food, contains the nutritive elements of beef, egg albumen and wheat gluten, so prepared as to be readily absorbed and aid almost immediately in the process of reconstruction. It furnishes the sick with the largest possible supply of nourishment and with the minimum tax on the digestive organs.

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is the only perfect digestive. It digests every variety of food. In physiological activity it presents the active and mother ferments of the entire group of digestive organs. It aids digestion by furnishing an additional supply of protoplasmic material out of which active ferments are elaborated, and perfects the process by increasing cellular activity.

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SUMMER DIARRHEA IN INFANTS.—Abroad, of late years a great deal has been said of the value of tannigen in controlling the stools. Dr. Blackader, of Montreal, in the March number of *Progressive Medicine*, in an excellent review of the recent literature on summer diarrhea, quotes no less an authority than Escherich, the well-known Professor of Children's Diseases at the University of Gratz in Austria, who speaks very favorably of tannigen, and claims for it a distinct disinfectant and bactericidal effect. Kraus and Biedert have also written in its praise, especially for chronic intestinal catarrh. It is a tasteless powder, therefore easily administered, and is given in doses of 2 to 5 grains four times a day. It is especially useful in cases of follicular enteritis, where local measures are of little avail. Its administration is continued in lessened doses after the acute symptoms have subsided, and it is said to hasten convalescence, which is often apt to be tedious.—*Med. News*, July 15, 1899.

A TALE OF A WICKED DRUGGIST WHO SUBSTITUTED.—Once upon a time there was a man of parts, who was also a physician. And the skill of this man was so great that the people of the land were wont to flock unto his office for advice, and incidentally medicine. As the years passed by he grew in wisdom; and the sick and suffering who sought relief from him invariably found it; for his con-

sultation price was five. And to those whose red blood corpuscles were few and far between he always prescribed a favorite medicine, the like unto which there was, nor is, no equal—no, not one. And the name thereof was pepto-mangan. And the pale people who took this medicine grew well and strong; for their blood became good. Then their souls would be full of gladness, and they would return unto the doctor laden with milk and honey; for by his advice had they not found health and happiness? And the doctor was glorified in the eyes of his patients, and many shekels were his. Now there was a certain druggist to whom the people were wont to take the doctor's prescriptions to be filled. His face was that of an angel, and a small halo of his own manufacture encircled his fair forehead. But his heart was black within, and verily he was possessed of a devil. And when he saw the great sale of pepto-mangan, and the countless prescriptions which the great doctor was writing for this marvelous remedy, his heart was full of envy and greed. "Why," cried he, "should not I, with all my knowledge of mixing drinks and medicines, prepare a remedy like unto this pepto-mangan?" So out of the iniquity of his heart he prepared him a substitute; and to the many who came to his store clamoring for pepto-mangan he would say that he was just out of that particular preparation, but that he had another "quite



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as good, if not a little better.” And the good people, looking up at his halo, believed him for an honest man, and went forth from his store well pleased at his kindness in giving them something even better than what the doctor ordered. To others he would say nothing, but would fill their prescriptions with his own concoction and send them away in ignorance of what he had done. And as the shekels poured in on his counter like golden rain, his soul laughed with glee; for in his mind he saw himself rich beyond compare. But the people grew well no longer. No more did they repair unto the doctor with thankful hearts. Instead of returning unto him with praise and thanksgiving, as before, they approached his sanctum with lamentation and wailing. And curses were his instead of shekels. “What, ho!” quoth he. “Wherefore am I getting it in my cervical region? Can it be possible that I, even I, have become a ‘has been’? Or has my favorite tonic failed me in my old age?” And he made talk with his patients seeking knowledge whereof they were no better. And after many questionings he learned of the iniquity of the man of drugs. Then he was wroth, and with voice like the raging wind he poured forth unto the heavens the crime of the druggist. And all the people heard. Therefore did they meet together, and with one accord hastened unto the store of him who had defrauded and cheated them. And

their anger knew no bounds; for they took him out into a lone place, and, with no unnecessary ceremony, *hanged him to a tree*. Then on his breast was pinned a card on which were written the fateful words—“*Not what he wanted, but something just as good.*” No more thereafter was substitution known in the land, and the people thereof became well and lived happy ever afterward.

TO DOCTORS.

Moral—Beware of substituting druggists if you expect to cure your patients.

TO DRUGGISTS.

Moral—Beware of the wrath of the doctor and patient on whom you practice substitution.

A MAXIMUM NUTRITION AT A MINIMUM COST.—The unheralded advent of a dietetic debutant in the domain of medicine may not be attended with the flourish of trumpets and acclaim that some

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The Board of Health makes the following examinations free for the city Physicians: Exudate and sputum for diphtheria and tubercle bacilli, typhoid and yellow fever blood reaction and malaria organisms, well and cistern water and milk.

For other work I will charge the following fees: Urinalysis, chemical and microscopical, \$2.00; including staining for tubercle bacilli, \$3.50. Quantitative for sugar, \$2.50. This covers the work necessary to make a conscientious diagnosis, and for *life insurance*. Pus for gonococci and other microorganisms, \$2.00. Feces for parasites, eggs, etc., \$5.00. Blood for typhoid and yellow fever reaction, for malaria organisms, diphtheria exudate and sputum for tubercle bacilli, \$2.00. Other examinations for poisons, etc., according to labor and material consumed.

FELIX PAQUIN, Ph. B.,

Chemist and Bacteriologist of the Board of Health.
Member of the Association of Official Agricultural Chemists.

sensational discovery in serum-therapy secures; yet it cannot be denied that it is to the forced feeding of patients in phthisis that actual progress counts in combating this disease. Any substance or combination of food elements which would furnish concentrated and complete nourishment in malnutrition should merit the consideration of every thoughtful physician. Tropon, containing 90 per cent. pure albumin in the ultimate form of its absorption, must be reckoned as an important discovery and certainly a valuable contribution to food chemistry and food digestibility. When nutrition is deficient on account of exhaustion from disease or overwork, Tropon supplies ample nutritive material, and it can be readily adjusted to a mixed dietary. It does not impair normal digestive vigor, nor induce the aversion and monotony arising from the exclusive use of other food products. Tropon is capable of insuring prolonged and sustained nutrition *per se*. It is a perfect and complete substitute for albumin in ordinary food. The clinical

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experiments of Prof. Finkler and his pupils have shown that it is best used as an adjuvant with other food. Tropon is palatable, well borne, and does not cause intestinal disturbances. On account of these many striking advantages, and also its small bulk and low price, Tropon should achieve the same measure of success here as in Europe, and thereby justify the reputation of its discoverer, Prof. Finkler, of the University of Bonn, Germany. Drs. Strauss and Plaut of Berlin, Klein and Schmelinski of Hamburg, and Rumpf of Gorbersdorf, give unstinted praise to Tropon as an unrivaled food value in the various processes of digestion, absorption and assimilation. All of the above authorities report a rapid increase in weight from its use. Dr. S. A. Knopf, of New York, in his recent work on pulmonary tuberculosis, says on page 241: "Of the many food substances which have been recommended recently as especially valuable in the dietetic treatment of tuberculosis, I have used most extensively, and with most satisfactory results, the new product Tropon."

THE Mellier Drug Company of St. Louis have recently mailed to the entire medical profession of the United States a handsome engraving of "The First Meeting of the Medical Society of London held in 1773," together with a circular mentioning every one of the members whose portraits are presented in the picture, and

stating in what particular line each was preëminent. This engraving should prove an interesting and attractive addition to the walls of every physician's office, and if through an oversight any physician failed to receive a copy, or if his copy was damaged in transit, one can be obtained gratis by applying to the Mellier Drug Co., 2112 Locust street, St. Louis, Mo.

TYPHOID TRUTHS.—Many questions in regard to typhoid fever are as yet "sub judice." This disease is still a fruitful field for the medical essayist, also for the therapeutic theorist. Some facts, however, have been conclusively demonstrated. It is proven, first, that typhoid fever is caused by a specific microörganism; second, that it gains entrance to the circulation via the alimentary canal; third, that the intestine swarms with different varieties of germ life; fourth, that the aseptic and antiseptic treatment of this disease is the most rational and successful one; fifth, that Liquid Peptonoids is a valuable auxiliary fluid food for typhoid patients. These truths naturally lead to the formulation of therapeutic conclusions. They point out the following clinical indications for treatment:

As a food, it must be fluid. Also nutritious. It must admit of almost complete absorption by the stomach. It must be non-fermentable, or, in other words, aseptic. White milk will always constitute the patient's main dietetic reliance. It possesses two distinct disadvantages: (1) It leaves a residue after but partial stomach digestion—hard curds of coagula which mechanically irritate the ulcerated patches; (2) it ferments in the bowel, and furnishes pabulum for germ propagation. It thus adds to the existing septic infection.

Liquid Peptonoids is an ideal food help in typhoid fever; it is fluid; it contains the required amount of nutriment; it is completely peptonized, and therefore capable of complete stomach absorption. No residue left for intestinal digestion. It is absolutely sterile and aseptic. It cannot, therefore, add to fermentative processes. In addition it is very palatable and forms a grateful change from milk, which often palls upon the appetite. It is also slightly stimulating. Such a combination of qualities leaves nothing to be desired. It can be taken plain or in milk or water as preferred. Dose: 1 to 2 tablespoonfuls every two to four hours. Samples upon request. The Arlington Chemical Co., Yonkers, N. Y.

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ORIGINAL ARTICLES.

CLINICAL TYPES OF THE URIC ACID DIATHESIS.*

BY I. N. DANFORTH, A.M., MD.
CHICAGO.

It does not require a very extensive or prolonged experience in clinical work to show a careful observer that the victims of the so-called uric acid toxemia present a considerable variety, as regards form, feature, complexion, temperament, and all other characteristics which go to make up the personality of the individual patient. In other words, there is no ideal or fixed type which brands the lithemic patient, any more than there is an ideal or fixed type which marks the diabetic patient. But pretty careful study of my lithemic patients for the past five or six years seems to show that nearly all cases will fall into one of three groups, although an occasional case may so nearly combine the peculiarities of two of these groups that it may be doubtful which one has the strongest claim. The typical cases, however, present no difficulties, and even the doubtful ones usually present the "earmarks" of one or other of the three groups, if they are carefully observed.

As a preliminary, however, it is well for us to understand what we mean by a "lithemic" patient, since the term can no longer be limited to those who have acid urine with a more or less copious

* Read before the Association of American Physicians at its Annual Meeting in Washington, D. C., May, 1899.

deposit of uric acid or mixed urates. I would designate a person as a "lithemic" patient whose urine is habitually strongly acid, high-colored, and of high specific gravity (1025 to 1030), now and then slightly albuminous, with mucin—i. e., "cylindroid"—or occasional small hyaline casts, and which deposits uric acid or mixed urates, and perhaps oxalates on cooling. Such a patient is habitually "bilious" as the result of hepatic torpor, and the liver is frequently slightly swollen, the bowels are constipated, and the gastrointestinal tract is distended with flatus, the tongue is coated, the breath is foul, and the patient is constantly complaining of and dosing himself for "indigestion." Such cases include not only those in which uric acid is a visible and potential factor, but all cases which are the direct or remote consequence of the toxic effects of the alloxuric or xanthin compounds. Returning, now, to the postulate which forms the basis of and serves as the excuse for this paper, I repeat that in clinical experience we find three well-marked types of uric acid diathesis, each type clearly and sharply defined by examples which are of frequent recurrence in hospital wards, dispensary *habitués*, and office patients. These types I would classify as follows: (a) The plethoric type.

(b) The neurotic type.

(c) The anemic type.

In place of a detailed description of each type, I will illustrate by a brief description of cases, quoting from my office records.

(a) *The Plethoric Type.* Examples of this type are very common in clinical experience. The patients are mostly middle-aged, "well-to-do" men in active business pursuits, frequently overworked and overburdened with financial cares, the so-called "hustlers" who make things come to pass, and without whose sturdy and often herculean labors most of the successful enterprises of this world would turn out failures. As illustrative of this type the following case is presented:

Case I. P. A. M., aged 50 years; weighs 194 pounds; is five feet ten inches in height; married; father of three healthy children; is a merchant, but a couple of years ago had a financial reverse, and has since filled a responsible salaried position in a bank. He first consulted me April 15, 1897. At this time he looked the picture of robust health, but physical examination showed slight cardiac hypertrophy, with a short, sharp, angry systole, and considerable arterial tension. The liver was perceptibly enlarged, and he had constant and annoying gastro-intestinal flatulency, with coated tongue, foul breath, constipation, and a whimsical appetite, although he was a

rapid and rather a gross eater, "bolting" his food in a half-masticated condition. He had always been a temperate man, used no tobacco, and there was no history of venereal disease. He complained of some headache, occasional attacks of giddiness, a little shortness of breath after unusual exertion, backache, and occasional transitory or "flying" pains in the smaller joints of the extremities. Examination of the urine showed acid reaction, specific gravity 1015, urea 1.5 per cent., albumen a well-defined trace, no sugar, a copious deposit of lithic acid crystals, a few leukocytes, a few small hyaline casts, and numerous "cylindroids" or mucin casts. The quantity of urine varied from three to four pints in the twenty-four hours, so that the output of solids was practically normal.

Under appropriate treatment, a carefully regulated dietary, the free use of pure water, and an increase of outdoor exercise, the albumen and casts disappeared, the lithic acid was reduced materially, and the troublesome symptoms gradually abated; in fact, he recovered in a technical sense, yet his peculiar constitutional tendency remained. He has still recurring lithic acid "showers," and every now and then requires "curing" over again.

What is the nature, or what is the "diagnosis" of this case?

Not many years ago I would have made an off-hand diagnosis of "chronic interstitial nephritis," and a gloomy prognosis would follow as a matter of course. In a certain sense, it must be admitted, the diagnosis of "interstitial nephritis" would be correct, and yet it is a crude, superficial and misleading diagnosis, because it is based upon a false and superficial view of the essential pathology of the case; and as it is presented as a type of a very common and numerous group of cases which in my judgment are frequently misunderstood, and are therefore subjected to maltreatment socially and therapeutically, I purpose devoting a few moments to the elucidation of what I believe to be the real nature or the intrinsic pathology thereof.

1. There is present in all such cases a "catarrhal nephritis," as shown by the constant presence of slight albuminuria, few or more leukocytes, and the so-called "false casts" or "cylindroids."

Catarrhal nephritis, as a pathologic entity, was described by me in detail in a paper read before the Illinois State Medical Society at its meeting in 1885, and, so far as I know, has not been described by anyone else, either before or since that time. My paper fell stillborn before the Illinois State Medical Society, was quietly laid away in that "bourne" from whence no paper ever returns—the annual volume of *Transactions*, and has been sleeping there ever since. Nevertheless, the accumulated experience of the bygone years has assured me that a chronic catarrhal condition of the renal

tubules—a condition analogous to catarrh of the bronchial tubes—is a common occurrence, is frequently associated with uric acid toxemia, and is undoubtedly, in most cases, caused thereby. It is quite possible for this simple catarrhal condition to remain uncomplicated and unmixed for long periods of time—weeks or even months—and then to recover, precisely as a bronchial catarrh may recover, without losing its identity or changing its essential nature. *Therefore*, it is entitled to consideration as an independent pathologic entity, and not merely as a symptom, or as a stage or stepping-stone to something else.

2. There is also present in many cases belonging to this class an interstitial hyperplasia of the kidneys, in proof of which we find slight albuminuria, a few small twisted or distorted hyaline casts, and a certain degree of the cardio-vascular tension long since described by Mahomed. It is not true, however, that “nephritis” is a proper term to apply to this process, inasmuch as it is not aggressively inflammatory in its nature, and does not result in hypertrophy followed by the small red kidneys, as is the case in true interstitial nephritis. It does produce a slow and sluggish nutritive hyperplasia of the embryonic connective tissue of the kidney with induration of the organ, but without the wasting and distortion so characteristic of true interstitial nephritis. It is a very significant and interesting fact, that while this increase of connective tissue is going on in the kidney, precisely the same process is generally taking place in the liver, as Dr. Emil Boix has so clearly pointed out in his admirable little brochure on *The Liver of Dyspeptics*.

3. But while these palpable and visible lesions are undeniably present, they are not by any means the primary pathologic factors in the cases under consideration. There is another factor which antedates the anatomical lesion by a long period of time, months or even years, and this factor is the constant presence of lithic acid or other unnamed, and, perhaps, unrecognized compounds of the xanthin series. These bodies exert a peculiarly irritating or exasperating influence upon the connective tissues of both the kidneys and liver, sometimes manifesting their effect chiefly and primarily upon the kidneys, sometimes chiefly and primarily on the liver. In the majority of cases, I think, the kidneys suffer first and perhaps most, but in a respectable minority, certainly, the liver responds more promptly than the kidneys, and keeps in advance of these

organs in the series of retrograde changes which follow. In all cases both kidneys and liver become more or less involved, the difference being one of degree, and not of kind. If we seek to explain the occult influence which the lithic acid wields over the connective tissues of the organs under consideration, we are at once confronted with insurmountable difficulties. Not until we have fathomed the mysteries which surround the ultimate phenomena of normal nutrition, the conversion of normal pabulum into substance like itself by the normal cell-nucleus, and the conversion of the nucleus itself into perfect and normal tissue, can we expect to explain the equally occult phenomena of abnormal or pathologic nutrition. This, however, is true, that the presence of lithic acid and its allies in abnormal amount in the blood, especially if this condition is at all frequent, excessive, or permanent, is certain to set up in the connective tissue of the kidneys and liver a process of nutritive hyperplasia which results in a mild or partial cirrhosis of those organs.

What this mysterious influence is, how it is excited, why it selects the connective tissues instead of other tissues equally exposed to contact therewith, are, at present, questions which we cannot answer. We frequently call it "irritation," and its consequences "irritative hyperplasia," but such futile attempts at "explanation" are not quite in keeping with the present demands of medical science. Let us hope that the busy workers in our physiologic and pathologic laboratories will before long penetrate the mysteries which now surround the phenomena of normal and pathologic cell life.

It is important to sharply distinguish this form of cirrhosis from alcoholic cirrhosis, from which it differs both as to cause and effect. As to cause, in that it is not alcoholic, but lithemic; as to effect, in that it does not destroy the organ involved, by progressive and irresistible cirrhosis, but is content with inducing a well-marked hypertrophy with some degree of induration, which, however, does not destroy the functional power of the organs, although it does abridge their vital capacity. Of course, in this category, I only include cases from which alcohol can be absolutely excluded as an etiologic factor.

(b) *The Neurotic Type.* The contrast between typical examples of these two types is very sharp and well marked. Very many of the so-called "nervous temperaments," "neurasthenics" and "ner-

vous cranks," as well as most of the cases of "nervous dyspepsia," are in reality cases of the neurotic type of lithemia. The cases are about equally divided between men and women, with, at least in my experience, a slight preponderance in favor of men. Such cases present the same coated tongue, foul breath, and constipated bowels as we find in the former type. Gastric irritation with flatulence and frequently gastric dilatation are generally present. The following case is presented in illustration of the characteristics of nervous lithemia:

Case II. M. P. R., April, 1898, lady, aged 58 years; married, mother of two healthy adult but markedly nervous children. Had cystitis two or three years ago without any tangible cause; is morbidly susceptible to changes of temperature; has had a few slight attacks of rheumatism years ago; looks healthy and well nourished, but says her "nerves are all on a wire edge;" urine produces scalding when it passes, and she wants to "urinate all the time;" urinating does not produce relief, and she "cannot stand, walk or ride without great discomfort."

At my first examination the urine was rather scanty (daily quantity not given), cloudy, highly acid, specific gravity 1030, no albumen, urea 1.75 per cent (Doremus ureometer). The cloudiness disappeared on applying gentle heat. After standing a few hours a very copious deposit of lithic acid and oxalate of lime fell down. The microscope showed nothing but a plentiful crop of bladder epithelium. The tongue was coated, the bowels constipated, and the digestive tract was distended with flatus. The patient was exceedingly "nervous," slept poorly, and was quite depressed and worried about herself; so much so that her family had begun to fear that serious nervous or mental symptoms might follow, an opinion which had been somewhat encouraged by an exceedingly capable neurologist.

Under appropriate antilithic, hygienic, and dietetic treatment, coupled with some moral treatment, her symptoms all disappeared, and she resumed her place in society and in church with her wonted vigor and capability. Her symptoms will return again and again, to be relieved in the same way, if at all. If she is treated as a "neurasthenic," and the lithemic factor is overlooked, her symptoms will *not* be relieved, but in addition to "nervousness," she will develop cardio-hepatico-renal lesions of the gravest nature. I ought to add that careful inquiry elicited nothing to indicate that any pelvic lesion or irritation, past or present, could be blamed for her trouble, but that her symptoms were exclusively due to lithic acid toxemia.

(c) *The Anemic Type.* This type is not quite so common as the other two, but it is by no means rare. The patients are mostly women who have been overworked mentally or physically, or both; frequently young mothers, who have borne children rapidly and have been burdened with their care; or saleswomen who are required to stand all day in a constant state of tension and excitement; or ladies who are engaged in clerical work; or school teachers, who find their vocation irksome and exhausting. Of course,

males as well as females may and do have anemic lithemia, since some of the same causes obtain among men, but my own observation demonstrates that female patients are largely in the majority. What is meant by "anemic lithemia?" If a hundred people undertake to do more work than they are able, especially of a kind which makes exhausting demands upon the nervous system, they will all sooner or later "break down," and manifest symptoms which will lead to some kind of a diagnosis and some kind of treatment. They will all show signs of exhaustion and impaired vitality. Some will present manifest symptoms of brain-fag; others will show unmistakable indications of circulatory disturbance, such as tachycardia and hemic murmurs.

Neither of the foregoing groups are likely to claim admission to the lithemic class, but there remains a group of anemics that is unmistakably and indisputably lithemic; a group in which the lithemic toxemia undoubtedly antedated and determined the anemia; a group in which the anemia will resist therapeutic measures unless these measures are combined with or preceded by measures specifically addressed to the relief of lithemia. In this group of cases slight albuminuria will be present, and a few casts, either hyaline or cylindroids, or both; also a few leukocytes, some renal epithelia, a copious deposit of "red pepper," grains of uric acid, and probably crystals of oxalate of lime. The urine will be scanty, intensely acid, of high specific gravity, and will probably cause some cystic irritation and "scalding" when it is voided. The patients will generally be pale, depressed, or misanthropic, and such cases sometimes develop into actual "melancholia," although it rarely becomes permanent. The tongue is coated, appetite poor and fitful, bowels constipated, and the patient is constantly troubled with gastric and enteric flatulence. The following case will serve us as an illustration of the foregoing statements. I might add many more from my office records, but one is sufficient:

Case III. Mrs. C. consulted me April 8, 1898. She is rather tall, spare, blue-eyed and blue-veined, pale and delicate; almost ethereal in her dainty refinement, and has "anemia" written all over her in capital letters. She is 35 years old, weighs 106 pounds, is married and has three children. No serious illness except parturition, and her labors have been quite normal and uncomplicated, both as regards delivery and convalescence. In fact, her life has been singularly free from wear and tear, from sickness or from any other cause, yet she has been subject for several years past to periodic headaches or "migraine;" has suffered constantly from flatulent dyspepsia and consti-

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pation; has had a fickle and whimsical appetite, occasional attacks of hemorrhoids, and all other adjuncts of bad digestion and imperfect assimilation. The menstrual function has always been perfectly performed, save that the flow has been scanty and rather colorless. The urine is scanty, high-colored and rather frequently voided, but without pain. It is highly acid, specific gravity 1027, contains a trace of albumen, no sugar, 1 per cent. of urea, and throws down a copious crop of lithic acid on standing.

The centrifuge throws down "cylindroid" or mucin casts, showing the "catarrhal kidney," according to my peculiar but well-grounded views of renal pathology. I did not count the blood globules, but a hasty examination of some slides easily demonstrated a decidedly abnormal number of white corpuscles. It would seem at first glance that an off-hand diagnosis of anemia, anemia pure and simple, uncomplicated idiopathic anemia, could be made in this case without any danger of going astray. And precisely this diagnosis *had* been made again and again, and persistent treatment, based upon this diagnosis, had been carried out to no purpose, save a temporary appearance of gain which amounted to nothing. But when the administration of hemogenetics is preceded, and preceded long enough, by the administration of anti-lithics, when the scavenger organs have been made to resume their duties so that elimination is effectually carried on, when the digestive system is brought into a condition which enables it to appropriate both food and tonics, then, and then only, can tonics be expected to produce satisfactory results. In other words, when a case of anemia is of lithemic type and origin, it is futile to treat the anemia as the primary malady; the lithemic factor must be recognized and disposed of before any hemogenetic treatment will result in positive good. Perhaps there is no error more common among us than to overlook the lithemic cause underlying certain cases of anemia; perhaps no class of anemias respond more promptly to appropriate treatment than those which are associated with lithemia. It has often seemed to me that the system fairly bounded back to health and vigor as soon as it was relieved of the incubus of the lithemic poison.

It seems scarcely necessary to say that a pathologic condition showing such a diversity of types cannot be treated by any hard and fast or uniform method. In many instances we are quite too much the slaves of so-called "principles of treatment;" in too many instances we are apt to accept symptoms as "indications for

treatment" with the helplessness of true disciples of Spencer; but in no instance have we followed the "*indicatio symptomatica*" with such dog-like fealty as in the treatment of lithemia. It has come to be the accepted law that lithemic patients must be dosed with alkalies, drenched with water, flooded with milk, and forbidden to touch meats, no matter what the physical condition of the individual may be. But this is a very absurd practice, which is condemned alike by common sense, science, and experience. Perhaps the blame may be partly due to the fact that many physicians seem to think that the treatment of the uric acid diathesis consists only in the elimination of uric acid, forgetting that a much more necessary thing is to abolish or lessen the production of uric acid. In the treatment of the uric acid habit it is the "*indicatio causalis*" that demands most attention—that is, the attempt to discover and remedy the cause of this sluggish, or it may be aberrant action of the scavenger organs.

It is not the purpose of this paper to treat at length or in detail of the therapeutics and dietetics of lithemia, as I propose relating the results of my experience on a future occasion. But I may properly add, that the plethoric type of the uric acid diathesis requires the vigorous use of antilithics and cholagogues for a considerable time, and their employment in lessened doses, weeks or even months, together with a diminished and carefully selected diet, from which nitrogenous foods are mainly excluded.

In the neurotic type the pathologic condition is largely, sometimes wholly, due to nervous tension, nervous exhaustion, or excess of nervous wear and tear, so that the nervous centers are incapable of carrying on the work of elimination in a proper and satisfactory manner. Hence lithemia; hence, again, the added increment of nervous irritation due to lithemia, until the nervous system is "jangled out of tune," or, as one of my patients expressed it, is on a "wire edge."

Now, the stock treatment of lithemia for such a case as this would be sheer nonsense, worse than useless. The primary and most imperative demand is the use of measures which will relieve the extreme nervous tension, and place the nervous system in a state of rest. Many patients recover when they are sent to the country for a period of rest and enjoyment. Minute doses of the salts of caffeine are very useful, and neuro-tonics are required. But

the main thing is to take off the patient's harness and let the worn and jaded nervous system rest and recuperate, so that it can resume its legitimate duties in a normal manner.

The anemic type is more difficult to manage. In this the lithemia, like the anemia, is chronic; in fact, is part and parcel of the anemia. Yet it is necessary to restore, in some degree, the power of elimination before much progress can be made toward curing the anemia. The use of antilithics in small doses, judiciously employed, must precede tonics, and I am much given to the use of the caffeine preparations in this group of cases. Iron is badly borne, but phosphate salts and strychnin are very useful. Manganese sometimes serves an admirable purpose.

I regret that I cannot here and now take the necessary time to speak of the treatment of lithemia exhaustively, but this paper has already long exceeded the limit wisely adopted by this Association as a necessary protection against undue prolixity.

70 State street.

A CLINICAL STUDY OF SUNSTROKE.

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The subject of sunstroke has always been of interest, inasmuch as the mortality is high. It is hoped an accurate study of the symptomatology and treatment may be of value in the more prompt amelioration of the effects of heat on the human body.

During the summer of 1898 I had unusual opportunities for the study of this disease in St. Agnes' Hospital, and in a short time, forty-one cases came under observation.

It is here contended that heat exhaustion and insolation are but different manifestations of a morbid process really having the same pathogenesis; and while this is perhaps accepted, we feel that many are too apt to look upon them as separate entities. H. C. Wood has shown clearly that there is a center, perhaps in the medulla, which presides over the manufacture and dissipation of heat, and that heat stroke paralyzes the heat dissipation center, and more heat is produced and less given off, consequently the high bodily temperature. In heat exhaustion the heat manufacturing center is

paralyzed, less heat is manufactured, and the bodily temperature becomes subnormal.

While the cases here reported have to deal with the franker malady, thermic fever, it is hoped, in the analysis of the symptomatology especially and the reference to a few aberrant cases, to make it more plain that a dividing line does not exist. These cases come mainly from the working class, people who are supposedly in a condition of good bodily health and are able to stand the invasion of disease, but owing to greater exposure of the tissues to such high degrees of temperature they are naturally more frequently affected than others whose vocation does not call into play such great muscular efforts and prolonged exposure to heat.

The intimate relation of the two conditions may be shown by the elevation of temperature in heat exhaustion after the normal line has been reached. In practically all the cases of heat exhaustion this secondary rise was noted. It varied from 99° to 103° or higher. A marked example of this is the following case:

The patient was admitted to the hospital in profound collapse with temperature 95.4° . The hot air bath and cardiac respiratory stimulants were administered. In about half an hour the temperature was normal and the patient seemed quite restored. About four hours later the fever began to rise rapidly and in a very short time had reached 107° . The ice bath was resorted to at once, but while in the bath marked signs of dissolution appeared, the patient was restored to his bed, and in ten minutes was dead.

In the primary condition the heat manufacturing center was paralyzed and less heat manufactured; the center reacted from its depression, but being in unstable equilibrium, immediately went into a condition of excitation, with overproduction of heat and consequent hyperpyrexia.

The depression of the heat center was not noted in any of the thermic fever cases, but usually showed a tendency to rise again, though not to its original height. In several cases baths had to be again resorted to in order to control the temperature. In two cases the secondary rise occurred within a few minutes after the temperature had been reduced, and it was necessary to repeat the bath on several occasions before the temperature remained normal.

The number of males treated for both thermic fever and heat exhaustion was 37; number of females, 4. Number of thermic fever cases, 23; heat exhaustion, 18.

As to the length of time the patients were sick before being admitted to the hospital it is impossible to tell. A few were found in their rooms at boardinghouses or hotels, and being unconscious no history could be obtained, but by far the greater number were treated within a short while after the attack. Of the 41 cases 6 died, including one who died while *en route* to the hospital.

The ages of those who died ranged between 28 and 48. Age does not seem to have any special influence upon the death rate.

Probably the most potent cause of the high mortality is the length of time which intervenes between the onset of the disease and the beginning of treatment. The longer the organism is subjected to high degrees of heat, the more the disintegration of the tissues, consequently less vital resistance and recuperative force.

There are few diseases in which the organic degeneration is so prompt, and therefore there is no condition in which prompt and judicious treatment is more imperatively demanded.

The physical condition of the individual seems to be the determining factor as to whether the morbid condition produced be thermic fever or heat exhaustion. Alcoholics and fleshy and powerfully-muscled men seem almost invariably to be affected with the former malady, while women, sparsely-built and aged men are affected with the latter.

There seems also to be a relation between the physical condition and the nervous control of the heart mechanism. In conditions of exhaustion brought about by excessive drains on the system and in those suffering from anemia, the vitality of the center does not seem to be up to the normal, and when exposed to the hot furnace room or the direct rays of the sun, the resistance being diminished the center soon becomes paralyzed and cannot manufacture heat, the normal heat of the body is rapidly dissipated, and consequently there is a fall of temperature. In the first class mentioned the latent heat in the body becomes increased, the center reacts to the stimulation, an increased amount of heat is made and probably less dissipated, and a rise of temperature results.

The mortality of heat exhaustion, according to our experience, is very low. The only case lost was the one who died while *en route* to the hospital. Those who died of thermic fever had been ill for some time before admission, were all deeply cyanosed and showed marked evidence of failing circulation.

The immediate cause of death in all the cases except two was failing circulation producing pulmonary edema. The most plausible theory of cardiac failure is perhaps that of the coagulation of the myosin of the heart muscle and an overfilling of its right chambers and venous system. Two cases died of collapse of the lung. When the edema of the lung was marked the ultimate outcome was almost sure to be fatal, though two cases recovered after this complication manifested itself.

The complications as observed were: convulsions, which were marked in 4 cases, mild in 7; tonic spasm of all the muscles was an accompaniment of the convulsions, it being present in nearly all cases where the temperature was high; cerebro-spinal meningitis, varying in severity, dependent upon the height of the fever and duration of the attack; in all cases with high temperature it was pronounced from the outset; collapse of the lung was noted in 2 cases as mentioned above, and in all probability produced by a pulmonary embolus.

The sequelæ so far as known were practically nil. Many patients when restored to consciousness felt no ill effects from the stroke save a soreness of the muscles. Two cases complained of continuous headache, and when seen about two weeks after being discharged were still suffering from it. If the histories could be traced, no doubt it would be found that many never completely recovered, notwithstanding the fact they left the hospital feeling quite well.

Unfortunately the families of the deceased refused autopsies, so we were unable to note the pathologic findings. When the patients were bled to relieve congestion the blood was dark in color and showed no tendency to coagulate early. Only one case was tested for the reaction and this proved to be decidedly acid in character. Rigor mortis was noted early, and cadaveric lividity marked.

Several cases have been abstracted from the records which are deemed typical of those occurring during the time mentioned. In submitting this report no attempt at a detailed outline of each case is made, as there is a sameness in many of them which would make such an outline monotonous.

Case I. A. L., female, very muscular; caught cold day before and had pain over entire body. On the day of admission she walked two miles in the sun, and on arrival at the hospital the temperature was 110°. She was cyanosed, unconscious, pulse scarcely perceptible. Ice bath given and temperature reduced. A few hours later she

became quite irritable and mind flighty. Two days later she was discharged cured; no uncomfortable sensations.

Case II. J. K., male, aged 49; alcoholic history; temperature 112° after being in bath several minutes; pulse very weak, cyanosis, edema of lung, and relaxation of sphincter ani; coma. Ice bath was given and patient bled; intravenous injection of normal salt solution. In forty-five minutes his temperature was normal but he was still unconscious. Heart stimulants were given freely. In about eighteen hours consciousness was regained. During this period it was necessary to strap him to the bed to prevent his wandering about the ward. The following day the pulse was quite good, no edema of the lungs, no headache. In the afternoon he began to fail mentally and had delusions of persecution. It became necessary to confine him to a cell. This condition lasted about eight days, with occasional lucid intervals. The insanity assumed different types during this time. On the day of discharge he was quite restored to health; never complained of headache.

Case III. A. A., male, aged 15; temperature greatly reduced before admission, but still required the bath, and temperature was soon reduced. Later he developed meningitis, with its accompanying symptoms. On the following day he was thoroughly purged. Recovery soon began. When discharged from the hospital he was quite well.

Case IV. S. K., male, alcoholic history. On admission the thermometer could not register the height of temperature. Fifteen minutes after being in the ice bath the mercury was still driven to the top of the thermometer. He was deeply cyanosed, comatose, stertorous respiration and general convulsions. He was promptly bled, and his face cleared to some extent. Patient regained consciousness while still in the bath. Under strong stimulation the pulse became slightly perceptible and the condition so much improved that recovery seemed assured. In about three hours the temperature again began to rise rapidly and the bath was given, but to no avail. Convulsions were most marked; died day of admission.

Case V. D. S., male, admitted in unconscious condition, stertorous respiration, frothing at mouth, pulse very feeble, sphincter ani relaxed. He was placed in ice bath; mercury in thermometer sent to the top, but temperature was soon reduced. Patient was then bled and intravenous injections of normal salt solution given. Consciousness was regained in about forty-eight hours. He had several violent convulsions, and was feeble-minded for about two days. Discharged quite restored; no headache.

Case VI. M. D., male. On admission his temperature was 112° ; coma and cyanosis, frothing at mouth, convulsions, pulse absent at wrist, and did not respond to stimulation. Preceding death he had a most violent convulsion, and died six hours later.

Case VII. A. McD., male, aged 17. Heat exhaustion, alcoholic history; temperature 96° . Hot air bath and heart stimulants were given and patient was soon restored. Temperature rose to $102\frac{1}{2}^{\circ}$, but required no active treatment.

Case VIII. J. M., male, found in his room at hotel. On admission his temperature was 112° , and after being in bath about ten minutes he became cyanosed, comatose, pupils were contracted, very rapid pulse, slight convulsions, and contraction of the muscles. He was bled and the cyanosis cleared to some extent. Normal salt solution was given, but no effects were noted from its use. Two hours later collapse of the right lung. He died fourteen hours after admission.

Case IX. Italian, aged 38; admitted five hours after attack. He was cyanosed, comatose, stertorous respiration, very rapid, feeble pulse, contraction of all the muscles, and temperature was 112° after being in bath several minutes. Heart and respiration stimulants were freely given, but with no perceptible improvement. He was freely bled in the left arm and intravenous injections of salt solution given in the right arm. In about twenty minutes the pulse was much improved, rate 180 per minute. The condition steadily grew better, and, with the exception of an abscess at the site of injection, recovery was uncomplicated.

Symptomatology of Thermic Fever. The patient, while at work, may feel perfectly well, when suddenly there comes a slight attack of vertigo or momentary blindness. Muscular weakness becomes a pronounced symptom, and it is necessary to either seek support from some surrounding object or lie down. There is a feeling of great depression and impending death; respirations are labored, and there is headache of a most distressing character. When the temperature rises rapidly unconsciousness soon comes on, the respirations are finally stertorous, and the body and face markedly cyanosed. The pulse at first is full and bounding, but soon becomes rapid and feeble, and the lungs, from the failing circulation, are edematous. Coma is profound when the fever is high. If the high temperature persists the voluntary muscles are thrown into a state of tonic spasm, the head retracts, the facial muscles contract, and *risus sardonicus* appears. The sphincter ani relaxes and extravasation of feces occurs. Convulsions were not so frequent in my cases as one might expect from reviewing the literature on the subject. When they do appear, the severity of the spasm varies from a slight wave-like contraction of the muscles of the face to a general convulsion affecting the entire body. The convulsions and the rigidity of the muscles are undoubtedly due to a cerebro-spinal meningitis. Emesis usually occurs in the severer cases, the vomit being composed of the contents of the stomach which do not seem to be much altered by the process of digestion.

An alcoholic odor could be detected in many of the examinations. When progressive amelioration takes place usually the last symptoms to disappear are the headache and stiffness of the muscles. There is generally a secondary rise of temperature after the normal has been reached, and this lasts for a varying period of time, depending upon the rapidity with which the center regains its tone.

Consciousness does not always return as soon as the fever is

reduced, and it may be many hours before the mind is perfectly clear. Cases of milder type, where the fever is not high, complain of the headache, the stormy condition of the heart, and a sense of oppression.

The symptoms of heat exhaustion are similar to those of shock, and present all its associated phenomena. The lowest temperature observed was 95.4°. This was the only case unconscious on admission. The temperature usually goes above the normal after restoration has taken place.

Treatment. The first and most important feature in the treatment of sunstroke is the rapid reduction of temperature, and this is best accomplished by the ice bath. This has been in vogue many years and needs no special consideration. The next feature to which attention is called is the use of the physiologic salt solution in both sunstroke and heat exhaustion. So far as is known this is the first time it has ever been employed in this affection, and especial emphasis is laid upon the great benefit to be derived from its use. In a conversation with Dr. F. A. Packard, of Philadelphia, it was learned that he had in a letter to the editor of the *Medical News*, August, 1896, suggested it as a measure to be used in the treatment of sunstroke, but he has never employed it in a case. At the time of the treatment of these cases this fact was not known to me, nor was it learned till several months had elapsed after my experience with it. So, while its use was original, the matter of priority in its suggestion belongs properly to Dr. Packard. In cases where immediate death did not seem probable, subcutaneous injections were resorted to, while in severer cases intravenous injections were given. The salt solution acts as a stimulant to the circulatory apparatus, refills the vascular system which has been depleted somewhat by bleeding, and further dilutes the remaining toxic elements of the system. It has in several instances aided in turning the tide in favor of the patient.

When the pulse is full and bounding or the countenance cyanosed, or other evidence of cardiac engorgement exists, prompt bleeding will often bring instant relief by relieving the heart and brain of its congestion and removing some of the toxic elements. This procedure should not be resorted to indiscriminately, for at times more harm than good may be wrought by its practice. In an article on sunstroke in Allbutt's *System of Medicine* the author

speaks of this procedure as a "choice of evils," and says as a "general rule it has been abandoned. * * * Subsequent results have not justified it as a general practice." The most probable reason for its abandonment in England and India, for in America it has numerous advocates, was its abuse by surgeons of the British Army while in India. It was their practice to bleed all cases of this disease, regardless of its indications, and naturally the outcome was not so gratifying as its advocates made it appear. Furthermore, many of these cases were treated by douching, ice applications to the head, and such remedies as aconite, quinin, phenacetin, etc. Had the patients been placed in an ice bath, rapid reduction of temperature secured and the depressing antipyretics discontinued, even though blood-letting was practiced too assiduously, better results and lower mortality would, no doubt, have resulted. Bleeding should be resorted to with the same care that it would be in pneumonia. Its use in this disease was also abused and for many years discontinued, but with a clearer knowledge of pathology and physical diagnosis we are better able to note the indications, and its timely use has saved many cases. When the symptoms indicate its use it has always been employed without hesitation and no bad effects were observed. It was never employed as a routine measure.

The salt solution was never used in exhaustion, but I would advise it similar to the method of its employment in surgical shock.

Ice water enemata cannot be too highly extolled, and should be used in conjunction with the bath. Antipyretics were used only in the mild cases where the temperature was not sufficiently high to demand a bath. Aconite was employed with advantage when the pulse was full and the heart in a nervous storm. It not only quiets the heart but also dilates the vessels and bleeds the patient, as it were, in his own system. In the selection of cardiac and respiratory stimulants it is best to first choose those which do not excite the nervous system, but if necessary such stimulants as strychnin or cocain should be used and pushed to their physiologic limit, controlling the resulting spasm with chloroform.

Mental excitement and insomnia yield to the milder somnificients. For the headache, ice caps, bromides and iodides acted well with all.

As to the after-treatment, very little is, as a rule, required. The avoidance of unnecessary exposure to the sun, and, if possible, a cool climate in the summer, should be selected.

Randolph Building.

A CASE OF PELIOSIS RHEUMATICA (SCHOENLEIN'S DISEASE).

BY I. A. McSWAIN, M.D.

PARIS, TENN.

May 18, 1889, was called to see Mrs. W., age 35, white, married, mother of three children, the youngest seven years old. Previous health good. Family history showed that father and mother had both died with tuberculosis. Patient had suffered from a prolonged chill on the preceding day, followed by fever and a restless night. Temperature at my first visit 102° , pulse 90; complained of general muscular pains and especially with tenderness of the wrist and ankle joints, about which as well as the phalangeal articulations there was slight swelling. Among the first things observed were petechial or purpuric spots about the face and the wrist, back of the hands and lower extremities. It being a time when we look for malarial disorders in this climate, my diagnosis was rheumatism in a malarial subject, together with a complication of an unknown quantity in the purpuric manifestation.

A calomel purgative was ordered, bisulphate of quinin in four-grain doses every four hours, and to relieve the pain in the joints and reduce the temperature prescribed three grains each salol and phenacetin every four hours. This treatment was kept up for three or four days. The symptoms abated to some degree but did not subside. I then resorted to the use of sodium salicylate, under the impression that the case was probably largely rheumatic. This was given for two days in fifteen-grain doses every four hours. The affected joints in the meantime were bathed freely in hot alkaline solutions and wrapped in flannels saturated with a camphor liniment. This treatment was resorted to frequently during the progress of the case whenever the rheumatic symptoms were dominant. The rheumatic symptoms under this treatment improved, the purpuric spots fading in like ratio, but the fever, while distinct intermissions occurred lasting from eight to sixteen hours each day, would return. Quinin was again administered. The drug modified but did not control the fever.

Two weeks thus passed. The rheumatic condition was confined to the points first invaded, viz., the wrists, ankles, knees, and phalangeal and metacarpal articulations, and over these localities appeared the large crops of purpura. My treatment alternated between antirheumatic and antimalarial or a combination of both, to which was added tr. chlor. iron and arsenic, due attention of course being paid to diet, digestion and the urinary secretion, and suspecting the case to be one of lithemia, I gave soda and potass. bicarb. and lithia water freely.

The appearance of my patient was very deceptive. During the long intermissions of the fever and the subsidence of pain and tenderness of the diseased joints, she appeared to everyone to be convalescent. But this hopeful view of the case would in a few hours vanish, and we renewed the fight, with the rapid rise of fever and acute suffering attending it.

About the end of the fourth week distinct and severe rigors made their appearance. These would come on usually from 3 to 6 P.M., at a time when the temperature would be about 101° . Suddenly the temperature would take a wild flight to 105° within a very few minutes, requiring active bathing, application of ice, and the administration of acetanilid or phenacetin all combined. Had we not used these agencies promptly, together with a hypodermic of morphin to quiet the nervous disturbances, the fever would probably have gone much higher.

Careful examinations from time to time were made of the organs and cavities of the body with a suspicion of pus formation, but none was located. During the fifth and sixth week there was evidently a mild endocarditis, characterized by a feeble pulse and somewhat irregular and difficult respiration. The alkaline treatment was given steadily, together with strychnia, digitalis and nitroglycerin and general supporting treatment and diet.

For ten days or two weeks of the disease there was a looseness of the bowels, tympanites, dry tongue, and the general symptoms of toxemia resembling typhoid fever, with occasional rigors and the rapid hyperpyrexia, with great prostration, so much so that an unfavorable termination was anticipated. But during the tenth week a gradual improvement began which has proved to be permanent, and today, just twelve weeks from date of attack, the patient is rapidly regaining her accustomed health and assuming the duties of the household.

There are many details of symptoms and treatment that have not been mentioned, one of which I desire to allude to, the use of morphia and atropia hypodermatically. This was resorted to on the appearance of the rigors and was used from once to three times a day in doses of $\frac{1}{4}$ morphia and $\frac{1}{150}$ atropia, and continued until improvement in the case was manifest and then steadily decreased until it was finally abandoned. I am aware that this is a dangerous practice, as it is so apt to establish the morphin habit, but in this case I am confident the life of the woman had been forfeited without it. The physician, however, when compelled to use this drug for any considerable length of time, must not leave the patient until by decreasing the doses he has securely freed the patient from the morbid craving engendered by its continued use.

The points of interest in this case are chiefly these:

1. The rarity of the disease.
2. The decided intermissions which appeared to be distinctly malarial and which were misleading, as quinin, even in large doses (10 grains repeated every four hours for three or four days), failed to control the paroxysms.
3. The rigors, followed by a sudden hyperpyrexia, which persisted in spite of every sort of treatment for ten days or two weeks.
4. The deceptive intermissions in which every symptom abated sometimes for a whole day, to return again with great severity.
5. The apparent typhoid condition, lasting about ten days, during the sixth and seventh weeks.
6. The final and complete disappearance of all symptoms, and a return to health under so many unfavorable conditions.

A CASE OF PAPILLOMA OF THE SOFT PALATE.

BY RICHMOND McKINNEY, M.D.

MEMPHIS.

Laryngologist to the East End Dispensary.

While it is true that papilloma of the soft palate, and especially the uvula, is the commonest of all true tumors of the nose and throat, they are still infrequent enough to be called clinical curiosities. That they are, after all, not so very common, is made evident when we learn that even Jurasz, in his vast clinical experience, has seen only fourteen cases of this nature.

In textbooks we are told that these growths vary from a pin's head to a cherry in size, and that the diagnosis is easy from the gross appearance of the tumor. However, we should not rest easily satisfied with a macroscopic diagnosis in our cases of suspected papilloma, for there are several instances on record where mistakes have been made as to the clinical nature of the tumor removed. The most notable instance of such an error in diagnosis is, perhaps, that of Dr. Lefferts, who, at the 1889 meeting of the American Laryngological Association, reported a case in a girl of 16 as typical papilloma. No microscopic examination was made. The growth recurred after removal and was again removed by Dr. Simpson, who, after a microscopic examination, reported this as an instance in which a benign neoplasm had degenerated into a sarcoma. But Jonathan Wright states (*American Textbook of Diseases of the Eye, Ear, Nose and Throat*) that it is evident that the growth was malignant from the first. A similar mistake, occurring in the practice of Sir Morrell Mackenzie, is reported by Lenox Browne.

The case I have to report is as follows:

The patient, a commercial traveler, aged 32, was referred to me by Dr. Edwin Williams, of Memphis, for a throat examination. On first inspection, while examining his naso-pharynx, I noticed an irregularly-surfaced, pinkish white growth, about the size of a pea, attached to the soft palate at the base of the uvula. This was removed with a pair of curved scissors and a long nasal dressing forceps. On closer inspection the tumor was seen to be of the peculiar raspberry-like structure characteristic of papilloma. Its nature was further confirmed by the microscopic examination to which it was submitted. The microscopist's report is here appended:

"Dear Doctor—I send herewith a section of the uvular growth, which, as you can easily see, is a hard papilloma. The most of the picture is in horizontal section, but one process is well seen in vertical section, showing the papillary ingrowth of the fibrous stroma. Some very large vessels are seen, entirely out of proportion to the size of the tumor. Yours truly, (signed) WM. KRAUSS."



Illustrating Dr. McKinney's case of papilloma of the soft palate.

This case of papilloma was of peculiar interest to me, inasmuch as I was recently enabled to add to the literature of nasal papilloma by reporting (*New York Medical Journal*, March 4, 1899) what was perhaps the fourteenth authentic case of this kind on record.

Porter Building.

SUMMER DIARRHEA OF INFANTS.—McClanahan (*Jour. Am. Med. Assn.*, August 6, 1899), in a very good paper says he finds the diseases grouped under this name to occur almost exclusively (97 per cent.) in bottle-fed children. The exciting cause is acute indigestion due to improper diet, usually an excess of albuminoids. The high temperature in summer favors the development of milk bacteria. In very acute cases the post-mortem shows little lesion, which indicates that the cause of death is due to the multiplication of bacteria and absorption of resulting toxins; these latter may be in milk before feeding. Inflammatory changes are due to staphylococci; there is always a mixed infection. The treatment consists in stopping all food, using lavage and intestinal irrigation; calomel in small and repeated doses until the stools are spinach-green; bismuth as an astringent; Dover's powder for serous discharges. The food, after elimination, may be panopepton, liquid peptonoids, Jacobi's mixture of barley water, egg albumen, with whisky or brandy, and mutton broth. In the acute form, after elimination, a hypodermic injection of morphin and atropin is useful. Iced water containing a trace of nitric acid will replace the lost fluid, and in collapse hypodermoclysis of "normal" salt solution is recommended. Fever is controlled by an ice cap.

CORRESPONDENCE.

MEMPHIS, TENN., September 5, 1899.

Editors Memphis Lancet:

GENTLEMEN—In answer to Dr. Goltman's comments in the September number of the MEMPHIS LANCET on the "Communicability of Epidemic Cerebro-Spinal Meningitis," I desire to say that my reason for requesting Dr. Goltman to lay aside his textbooks and teachings of authorities and make an individual clinical study of the cases of cerebro-spinal meningitis which he saw during the epidemic of '98 and '99, was that he might sit as an impartial judge and render an unbiased decision in the case, for I know we are all susceptible to the influence of the teachings of our favorite authors.

The teaching of authorities on this disease is antagonistic to my clinical experience during the epidemic of '98 and '99.

For instance, Flint says the disease rarely occurs before the seventh year. J. L. Smith says the greatest number of cases occur between the fifth and fifteenth years. I saw cases occur in persons from birth to the seventieth year, although most of the cases which I saw were in children two and three years of age.

Hirsch, whom Dr. Goltman quoted in his first paper, Pfeiffer and Heiberg teach that persons of robust, vigorous constitutions furnish the greatest number of cases. While we have no positive evidence that cerebro-spinal meningitis existed before 1803, Livinus Baudrinus describes a disease in 1584 with symptoms similar to those of epidemic cerebro-spinal meningitis, which he said seized by preference the vigorous youth. This certainly was not my experience with the disease during the epidemic of '98 and '99. I stated in my last letter that all of the cases which I saw occurred in persons whose vitality had been lowered by bad hygienic surroundings and want of proper food.

Lemoin, who states that cerebro-spinal meningitis is both infectious and contagious, Dr. Goltman and other authorities would have us believe this a contagious disease—which is a mere hypothesis, as they can bring no proof to bear out the assertion. If this disease is contagious and has a preference for the healthy and the robust,

as we have been taught, I do not see why I did not contract the disease—for I was exposed to it daily, and took none of the precautions that I would take in handling a contagious disease. Born immune, I suppose.

Before closing this paper I wish to pay my respects to the micrococcus family; for we are taught that each and every member of this numerous family takes a hand in the causation of cerebro-spinal meningitis. Cornil and Babes say that it is caused by the lancet-shaped cocci of Pasteur, Mills and Combas the pneumococcus of Frankel, Obeke the chain cocci, another the streptococcus of erysipelas, and others the diplococcus intracellularis meningitidis. The author of this paper says that it may be due to "any old" coccus, and last but not least, Stiénon charges the crime to the gonococcus of Neisser. There now, poor Mr. G. Coccus; I thought he had sins enough to account for without charging him with this crime. So we see that each authority charges the deviltry done by this disease to the account of a different member of the coccus family.

Summing up the teaching of authorities on epidemic cerebro-spinal meningitis, in treating this disease we have to deal with—1, an infectious and contagious disease; 2, a disease which has a special affinity for the vigorous and robust; 3, a disease in which any member of the micrococcus family may take a hand in the causation.

These things being so, when the micrococcus family went on the warpath in Phillips county, Ark., in the fall and winter of '98 and '99, it is to me an unanswerable riddle why they ignored the vigorous and robust for whom they have a special affinity, and attacked the poor unfortunate whose constitution had been weakened from bad hygienic surroundings and lack of proper food.

If Dr. Goltman can lift the veil from this riddle, I shall be glad to hear from him.

Very truly,

JAS. L. BARTON.

335 Main street.

THE MEMPHIS LANCET.

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EDITORIALS.

THE STUDY OF THE ETIOLOGY OF MALARIA.

The earliest writers in medical history recognized the connection between exposure to miasmatic exhalations and certain paroxysmal fevers, associated with tumefaction of the viscera and the symptom-complex which constitutes what is known as "malaria." From the writings of Hippocrates we learn that he represented the hydric theory of transmission, since he taught that the drinking of marshy water was the cause of the disease. Galen, on the other hand, believed that a "marsh poison" contaminated the air, and its inhalation produced the disease, hence he represented the aerial theory of the transmission of malaria. Following medical history down to nearly the present time, the belief in a contagium vivum strove with the idea of some vague, indefinite miasma for the mastery. Strange to say, even after the discovery beyond doubt by Laveran, in 1881, of the specific pathogenic agent of malaria, the controversy between the adherents of the hydric and aerial theories of transmission remains one of the greatest *casûs belli* of epidemiologists.

Doubtless the discovery of "Chinchona" bark in 1630, and more especially its alkaloid in 1820, rendered the finding of the cause and mode of transmission of malaria less imperative than if we were powerless against its ravages, and even after the discovery of

the plasmodium our complete ignorance of its life history outside of the human body left a hiatus in our knowledge of this organism, and retarded further progress. We now find, rather unexpectedly, this line of research initiated in a country not especially noted for original work in this field, and in a manner which seems to leave no doubt as to the ultimate success of the work.

For ages some connection between the mosquito and infection by malaria was believed to exist, but the very discovery of the plasmodium rendered such a hypothesis apparently untenable, as a dual cause of the disease was not to be thought of. Manson, finding that the flagella of plasmodia developed only after the blood had been drawn for some time, argued that this must be a stage in the extra-human existence of the organism; no plasmodium with flagella had ever been found in freshly-drawn blood. Since this flagellated body had no apparent apparatus for penetrating vessel walls, it was manifest that some other agency was needed to introduce the hematozoon into the human body. The inference that this was done by some stinging insect was natural, and since the mosquito was the parasitic insect feeding on man in malarial regions, he looked upon this as the solution of the problem. The extra-human life cycle being unknown, and search in marshes for the same having always been uniformly unsuccessful, Manson interested Surgeon-Major Ross, stationed in India, in the matter, and this investigator, with a skill which borders on the impossible, dissected the stomachs of mosquitoes which had fed upon malarial subjects. He found that 70 per cent. of the crescents in the imbibed blood had developed flagella, and in the walls of the stomachs of such mosquitoes he found bodies which appeared to be plasmodia, which had penetrated there and then become encapsulated.

By studies upon birds infected with similar bodies, Ross and MacCallum arrived at results which can be summarized as follows: The organism taken into the stomach of the mosquito from an infected bird leaves the blood cell, throws out flagella, which become separated, wander about in the blood plasma until they meet another organism, which they enter and fertilize. The fertilized organism then acquires the power of penetrating the stomach wall, where it becomes encysted and develops a large number of rod-shaped, spore-like bodies; these can then develop into a new generation of blood parasites.

Ross found in the poison glands of mosquitoes fed upon infected bird blood great numbers of these rod-shaped spores. It follows, then, that the mosquito, unlike the Texas fever tick, can inoculate another individual in the same generation, the latter only transmitting the infection through its progeny. The infection by a new brood of spores, instead of by transferring the mature parasite, constitutes a more certain infection, more individuals being thus transmitted. This also more reasonably accounts for the definite period of incubation, corresponding to the time required for the evolution into the mature human blood parasite.

A cablegram recently sent by Ross to his Government from Africa, to the effect that he had found the "malaria mosquito," leads to the inference that he found the same or similar bodies in human malaria.

Smith's work with Texas cattle fever is so analogous that it gives, in his words, "moral support" to the mosquito theory. Smith argues that, assuming the introduction of the malarial parasite into the human body, when the conditions are favorable, i. e., if the infected individual lives near standing water to which mosquitoes may speedily repair and lay their eggs, and if the individuals to be infected are readily accessible to the young brood, the disease is likely to take root and become endemic. If the parasites protected over winter in infected patients are abundant, the disease may spread, unless the insects are suppressed; they are harmless in regions still free from malaria. Smith further infers that the mosquito can transmit the "germinal rods" to their ova, like the Texas fever tick.

Bignami, Grassi, Koch, Bastianelli, and others are carrying out experiments in Italy which thus far corroborate the results of Ross' work with bird malaria.

The presence of crescents and other resisting forms of plasmodia thus gains a new significance. They may carry over the infection to the next year, and they can also serve to perpetuate in the mosquito and there multiply. We are here in the presence of a revelation which may result in the eradication of malaria becoming something more tangible than a "pious wish."

REPORTS OF SOCIETIES.

PROCEEDINGS OF THE MEMPHIS MEDICAL SOCIETY.

Regular Meeting, September 5, 1899.

The President, Dr. B. F. Turner, in the chair.

Present were Drs. Turner, Alfred Moore, McKinney, Porter, Buford, Krauss, Barton, F. A. Jones, Ellett, Black and Williams. Visitor, Dr. W. M. Ball, of Mississippi.

The President read a paper on *Neurasthenia*. Until 1869 the neuroses were classed together, whether of hysterical, toxic or other origin. Baird then described a condition which he termed, and which is now known as, neurasthenia. It occurs between the ages of 20 and 50, affects both sexes, all races, especially the emotional ones, and is common in high altitudes. It is predisposed to by heredity, a mercurial temperament, excesses, trauma, exhausting diseases, emotional shock, and possibly excessive venery. Hodge showed that changes occur in active ganglionic cells analogous to those found in secreting glands, and proved that nervous energy is derived from chemical metabolism. This is the underlying pathology of neurasthenia, viz.: cell exhaustion from overactivity. The symptoms are deficient, but never lost, function, and manifest themselves in every tissue and organ of the body. Headache, backache, visual fatigue, tinnitus aurium, muscular weariness, gastro-intestinal, circulatory, menstrual and mental disturbances. There may, in the male, be emissions and sexual impotence. Inability to concentrate the mind, emotional irritability, with a tendency to pass to graver mental disturbances, are seen. A case was mentioned which passed from neurasthenia to hysteria and thence to incurable mania. The onset is insidious, the development slow, with remissions, and the course chronic. The diagnosis is to be made from hysteria, hypochondriasis and incipient organic disease. The treatment is to be conducted on hygienic and physiologic lines, with due regard to the importance of rest.

Dr. G. G. Buford said that the value of Hodge's studies could not be overestimated. They proved chemical changes to be present during nervous activity, and this is the key to functional nervous disorders. Excessive stimulation ultimately results in atrophy. He

does not believe much in the influence of heredity. He mentioned a case of neurasthenia which passed to melancholia, then acute mania, with recovery and a continuance of the neurasthenia.

Dr. E. C. Ellett said that the neurasthenic with eye symptoms derived little benefit, as a rule, from eye treatment. No glasses enable them to read comfortably, or relieve their eye pain, headache and other phenomena found in other cases to be due to eye strain. Some cases, however, have their origin in eye strain, and in these eye treatment will relieve, not only their eyes, but their remote symptoms. Regarding the diagnosis, the eye symptoms of neurasthenia are not characteristic, while in hysteria the hysterical amblyopia, reversal of form and color limits of the field of vision, and conjunctival anesthesia, are quite characteristic. The pupillary, perimetric, and optic nerve symptoms of organic disease are well recognized, and aid not only in diagnosis but in localization of the lesion. In regard to the throat and nose, we recognize hay fever, aphonia, and *globus hystericus*, as sometimes of neurotic origin.

The President, in reply to a question from *Dr. Barton*, said he could not diagnose between neurasthenia of emotional origin and "masked goitre," i. e., exophthalmic goitre, without goitre or exophthalmus. In reply to a question from *Dr. Krauss*, he does not venture to be positive as to the diagnosis between neurasthenia and early organic disease until reactions of degeneration can be demonstrated. He does not think the effects of overstimulation of the nervous centers are permanent, but more like a temporary exhaustion. He does not find the application of *Weir Mitchell's* rest cure practicable, but obtains rest by a change of occupation and surroundings, and avoidance of mental worry.

Dr. Ellett made a report of *Two Months' Eye Service at the City Hospital*.

(a) Cataract Extractions. Eight operations had been done with eight successes. He prefers the combined to the simple method, and six of the cases were done in this way, i. e., with iridectomy. Holocain is the preferable anesthetic, and is now used exclusively in cataract operations by *Knapp* and others of large experience. No bandage is used, but a light dressing of gauze and cotton is held in place by strips of adhesive plaster. The patient is confined to bed till the corneal wound has closed.*

* These cases will be reported in full, with others, later.

(b) In enucleations, for the purpose of securing the best stump for an artificial eye, Mules, of Manchester, performs evisceration, and places a glass sphere in the cavity of the sclerotic. Morton has devised a method of placing the sphere in Tenon's capsule and uniting the muscles and conjunctiva over it. This method has been used by Dr. Ellett, with Bryant's perforated aluminum spheres instead of the glass balls. By using silk to unite the muscles, instead of catgut as Morton does, there is not much probability of the sphere becoming displaced. The sphere remains in the tissues permanently, and an artificial eye placed over it has a full and natural look and very considerable motion. In one case Dr. Ellett has observed the sphere in place after two years, and causing no inconvenience.

Dr. W. J. Lane was elected to membership.

PROGRESS OF MEDICINE.

MANAGEMENT OF PREGNANCY COMPLICATED BY ABDOMINAL TUMORS.
Rufus B. Hall (*Jour. Amer. Med. Assn.*, Sept. 2, 1899) draws the following conclusions :

The ease with which some cases recover, following removal of ovarian tumors, should not mislead us into the belief that there is no danger from abortion and its complications following the operation. Abortion at this time is attended with more risk than at any other and not a few of these patients die afterward, yet this fact should not deter us from advising and making the operation in all those cases where it is deemed advisable to do so after all the facts have been placed before us, even if the case is a desperate one.

An operation promises something. We should not refuse to operate on anyone where there is the slightest chance for recovery, if there is no chance for recovery without an operation. It is a duty that we owe to our patients to operate and give them the only chance, even if that is but one in a hundred.

I would advise operation for the removal of ovarian cysts in all cases where the tumor is small and fixed in the pelvis below the uterus; where the tumor cannot be lifted out of that cavity.

We should operate in all cases where there are any complications in the tumor itself, such as twisted pedicle, or ruptured cyst.

Patients with inflammation in the abdomen, caused by the tumor, should be operated on.

I would hesitate to advise operation during the pregnant state for an ovarian tumor of moderate size that was above the uterus and where the tumor itself was too large to occupy the pelvic cavity, if the woman had not suffered from the tumor and there was no indication of any complication.

In fibroid tumors of the uterus, I would advise operation in all cases where the tumor occupied the lower segment of the uterus and it was in such a position that it would interfere with or prevent delivery at full term. The question as to when the operation should be made, as to the period of gestation, must depend on each individual case.

If the woman has passed four or five months of gestation and it is possible to carry her to or near the full term of pregnancy, the question as to saving the child must be discussed.

If the patient can be placed in good surroundings and operated on just before the full term, or at the time of the commencement of labor, we could save both mother and child. But in many of these cases seen at three and one-half to five months of gestation, their condition becomes so intolerable that we are obliged to sacrifice the life of the child to save that of the mother. Their condition will not tolerate deferring the operation even for a few days. The long-continued pressure of a solid tumor in the patient's pelvis, damming back the urine on the kidney by pressure on the ureters, as it must in many of these cases, should have much weight in favor of immediate operation. Even if the patient should go to the full term of gestation and then be subjected to an operation, she would be in great danger of afterward dying from urinary complications. This is more likely to occur if the tumor develops in one of the broad ligaments; but, unfortunately, there is no choice in the matter in many of these cases; we must operate and accept the situation if we are to do anything at all for our patient. A man would be a coward to temporize in the face of such difficulties.

The question of what operations should be made should be left with each individual operator to use his best judgment at the time of the operation. The question of enucleation of fibroid tumors

and saving the uterus is being favorably discussed by many operators, but whether or not that operation would often be selected in the pregnant state remains to be seen.

THE CHOICE BETWEEN THE CÆSAREAN OPERATION AND ACCOUCHEMENT FORCÉ AFTER THE MOTHER'S DEATH.—It is just possible that the advances that have been made in recent years in the technics of the Cæsarean operation, whereby it has almost been robbed of its fatality, have led to such a degree of readiness to resort to it in the case of the living woman, and a consequent utter lack of hesitation to perform it on the dead, as may prove disastrous under certain circumstances, unless special precautions are taken. The danger was lately set forth somewhat graphically by Dr. Colle, at a meeting of the *Société centrale de médecine du Nord* (*Echo médical du Nord*, June 25th). Within a week of her expected confinement a woman fell dead in his presence, with symptoms of pulmonary embolism. He went home hastily to obtain the instruments necessary for the Cæsarean operation. It was fifteen or sixteen minutes before he got back to the dead woman. Then he rapidly incised the abdominal wall and that of the uterus, tore open the fetal envelopes, and was fortunate enough to extract a child which, although cyanotic, soon began to breathe and was saved.

But an ugly rumor began its rounds; it was whispered that the doctor had killed the mother. This set M. Colle to thinking, and his reflections were not pleasant. He asked himself what material proof he should offer that the woman had actually been dead at the time of the operation in case he was accused; and prosecutions of physicians were so easily set on foot! At the meeting he mentioned these reflections and cited instances of women supposed to be dead who had regained consciousness during the Cæsarean operation. He was inclined, therefore, to prefer *accouchement forcé* in cases of the supposed death of the mother, for it could be performed at once, and the woman, if not really dead, be saved as well as the child, while the *accoucheur's* reputation was safe also.

M. Oui agreed with M. Colle, that after the mother's death *accouchement forcé* was to be preferred to the Cæsarean operation, at least in private practice, for in the cutting operation the same precautions should be observed as if the mother were living, and that might really be the case. He cited Tarnier as having called

attention to the very important consideration that it was always necessary to lose more or less time in obtaining the consent of the family to the performance of hysterotomy, whereas one could proceed at once to extraction *per vias naturales* and incur no reproach. M. Oui would use the forceps if he happened to have the instrument with him, otherwise there was but one resource—podalic version.

Perhaps the obstetrician of the present day may fairly be expected to go to a case of confinement prepared to perform the Cæsarean operation at short notice and with all the attention to detail that it requires, but certainly it cannot be required of him that he should be thus ready in the case of a woman who, being in apparent health, falls dead in his presence while he is making an ordinary professional call on another member of the household, and is then ascertained to have been pregnant with a viable child—and this was M. Colle's experience. But the physician always has his hands with him, and can proceed instantly to dilate the cervix, rupture the membranes, turn by the feet, and extract—and that, too, without asking anybody's permission.—*Editorial N. Y. Med. Jour.*, Aug. 5, '99.

OPERATIONS IN GASTRIC ULCER.—Bidwell (*Am. Jour. Med. Sci.*, Sept., '99) enumerates the following indications for operation :

1. In all cases of perforation at the earliest possible moment; also in subphrenic abscess.
2. In cases of hemorrhage, (a) when there is continual oozing of blood, especially if the stomach be dilated, and (b) in cases of repeated severe hemorrhage.
3. In cases where there is severe pain and vomiting unaffected by treatment, and which is producing progressive emaciation.
4. In cases of dilatation of the stomach from contraction within or from adhesion outside the stomach.

The operations to be performed are: in class 1, laparotomy and suture of the ulcer; in class 2, gastrostomy and suture of the ulcer, with a purse-string suture, combined with gastro-enterostomy; in class 3, gastro-enterostomy, in order to give physiologic rest to the ulcer; and in class 4, either gastro-enterostomy, or, if the pylorus be affected, pyloroplasty or pylorectomy.

The results are much more favorable than formerly; complete tables of statistics are given.

THE ETIOLOGY OF YELLOW FEVER.—In the report of the Commission of Medical Officers, Marine Hospital Service, detailed by authority of the President to investigate the cause of yellow fever, the following conclusions are drawn :

1. That the microörganism discovered by Professor Guiseppe Sanarelli, of the University of Bologna, Italy, and by him named “bacillus icteroides,” is the cause of yellow fever.

2. That yellow fever is naturally infectious to certain animals, the degree varying with the species; that in some rodents local infection is very quickly followed by blood infection; and that while in dogs and rabbits there is no evidence of this subsequent invasion of the blood, monkeys react to the infection the same as man.

3. That infection takes place by way of the respiratory tract, the primary colonization in this tract giving rise to the earlier manifestations of the disease.

4. That in many cases of the disease, probably a majority, the primary infection, or colonization in the lungs, is followed by “secondary infection” or a secondary colonization of this organism in the blood of the patient. This secondary infection may be complicated by the coinstantaneous passage of other organisms into the blood, or this complication may arise during the last hours of life.

5. That there is no evidence to support the theory advanced by Professor Sanarelli that this disease is primarily a septicemia, inasmuch as cases do occur in which the bacillus icteroides cannot be found in the blood, or organs in which it might be deposited therefrom.

6. That there exists no causal relationship between the bacillus “X” of Sternberg and this highly infectious disease; and that the bacillus “X” is frequently found in the intestinal contents of normal animals and of man, as well as in the urine and bronchial secretion.

7. That, so far as the Commission is aware, the bacillus icteroides has never been found in any body other than one infected with yellow fever; and that whatever may be the cultural similarities between this and other microörganisms, it is characterized by a specificity which is distinctive.

8. That the bacillus icteroides is very susceptible to the influences injurious to bacterial life; and that its ready control by the process of disinfection, chemical and mechanical, is assured.

9. That the bacillus icteroides produces *in vitro*, as well as *in vita*, a toxin of the most marked potency; and that, from our present knowledge, there exists a reasonable possibility of the ultimate production of an antiserum more potent than that of Professor Sanarelli.

A CLINICAL STUDY OF TWENTY-FOUR CASES OF PARALYSIS AGITANS, WITH REMARKS ON THE TREATMENT OF THE DISEASE.—Joseph Collins and L. J. J. Muskens, (*New York Medical Journal*, July 8, 1899) have made some original observations. Although paralysis agitans is classified as a functional nervous disease, pathologic changes are almost invariably found in the central nervous system after death, especially if the disease has existed for a long time. The relative frequency was 1.3 per cent. of all cases coming to the clinic. Nearly half were of the Irish race, though the Irish women constituted only one-twelfth of the total number. The age of the patients corresponded to that of most writers. The heredity however differed, as there was a straightforward history of direct inheritance in four cases. In regard to occupation, "neither the mentally harassed nor the physically overworked have a special liability; workers out of doors develop the disease as frequently as indoor workers." The alleged causes were classifiable under the head of psychical and emotional trauma. Only two were hard drinkers or smokers, and in none was there a history of syphilis. The most striking feature of the personal history of all these patients was that they had lived temperate, wholesome lives, free from undue strife or any uncommon burden. The most important factors in the etiology were age, sex, nationality, morality, violent emotions, heredity, and infectious diseases. The course of the disease is uniformly progressive, in contrast to disseminated insular sclerosis, with which, as some still maintain, it may be confounded. The disease lasts from five to thirty years; as a rule the subject becomes asthenic and dies from an intercurrent infection.

The authors do not advocate mechanical treatment; baths may be of use, or cool affusions, followed by friction. The drugs of use are: hyoscyamus, duboisin, indian hemp, opium, hematogenous agencies, and occasionally gelsemium and veratrum viride. Salycilates and bromides are condemned. The milder hypnotics may be used, but later in the disease opium only gives relief.

THE OCULAR AND ORBITAL SYMPTOMS OF LESIONS OF THE FRONTAL SINUS.—Robert Sattler (*Medical News*, August 5, 1899) says that while the clinical characteristics and indications for surgical treatment in acute disease of the frontal sinus cannot easily be misinterpreted, chronic lesions, which are more frequent, present meager symptoms and considerable difficulty of diagnosis, since they may run an almost latent course. Retention of purulent material, granulation tissue and bone hypertrophy are the pathologic conditions found. Many cases of caries of the orbit in strumous children are expressions of frontal sinus disease. Unilateral, diffused or localized orbital tenderness is an early symptom, giving way to painful swelling of the periosteum and bone. Neuralgic explosions, often without any other local symptoms, or general headache, may occur. Nasal symptoms are often absent. Absorption or inspissation of an empyema may occur, or a spontaneous evacuation, either externally or into the nose. Severe neuralgic seizures are rather common in cases of bone hypertrophy. The accumulation, in purulent cases, usually discharges into the orbit, whence it may burrow extensively. Serous infiltration of the lid interferes with the levator and frequently causes ptosis, and sometimes proptosis and lateral and downward displacement of the ball. Conjunctival engorgement, from pressure on the veins, is common. The exophthalmos varies from day to day.

In treating this condition the intra-nasal route is now abandoned for the external attack with mallet and chisel, which the author prefers to drills, etc.

ANGIONEUROTIC EDEMA AND ALLIED CONDITIONS — REPORT OF SEVEN CASES.—In the paper of the above title B. Onuf (*Med. Record*, August 5, 1899) gives us an analysis of seven cases. The author is inclined to include under the general head, many disorders. Thus angioneurotic edema of the skin is allied to urticaria and neurotic fugitive erythema. All three have in common the circumscribed character, their usually sudden paroxysmal coming and going and reappearing, and their causation by disturbance of vascular innervation. Urticaria is an affection of the superficial skin, while angioneurotic edema is an involvement of the subcutaneous tissue. Angioneurotic edema of the viscera may be active or passive. The latter is evidenced by anorexia, dyspepsia and consti-

pation ; the former by a sensation of pressure in the chest, dyspnea, followed by nausea and by burning and tearing pain in the region of the stomach ; colic-like pains may be present, followed by the expulsion of muco-fibrinous casts of the intestine (enteritis tubulosa). Finally, there may be marked psychic symptoms.

The etiology is usually a neuropathic or psychopathic taint. The differential diagnosis is to be made from mechanical local edema, hydropic edema, the white and blue edema of hysteria, myxedema, insect bites, and erythema nodosum. The treatment promising most is one directed toward strengthening and tranquilization of the nervous system.

There is doubtless a close connection between these disorders and angina pectoris, asthma, disorders of menstruation, lithemic conditions, and other disturbances of a vascular or viscero-motor or secretory innervation—in fact, a general disorder of the vegetative functions of the nervous system. This taint might lead to the symptom-complex known as Basedow's disease.

GUNSHOT WOUNDS OF THE CHEST IN THE SPANISH-AMERICAN WAR. Greenleaf (*N. Y. Med. Journal*, Aug. 26, '99) says that the indications for treatment are two-fold :

First, to guard against infection at this time, when conditions are so favorable for that very serious complication, and second, to check hemorrhage as soon as possible ; for a collection of blood in the pleura or a hemothorax in the lung is a most fertile ground for saprophytic invasion, and acts itself as a foreign irritant. The first is met by promptly cleansing and applying the first-aid sterile dressing, and using special precautions during convalescence to prevent exposure and infection that would lead to any general inflammatory condition of the lungs. We know that a bronchitis, pneumonia, or any inflammatory condition of the lungs, presents a favorable soil for the ever-present microorganisms and soon breeds them into their more virulent form, thus greatly favoring the eventual formation of empyema or lung abscess, especially where there has been bleeding.

The second indication is met by making it thoroughly understood, especially among soldiers themselves, that all chest wounds are serious, and that the patient must be kept absolutely quiet and passive, avoiding talk and active motions of all kinds, and trans-

ferred with the gentlest care, preferably on a litter, over rough ground. The surgeon should employ the usual methods of controlling internal hemorrhages, as keeping the injured side at rest by strapping and the use of opium, the administration of internal astringents, local use of cold, enforced use of bedpan, etc.

SOME NOTES ON THE TUBERCULIN TEST.—Otis (*Journal of Tuberculosis*, July, '99) summarizes as follows:

1. The tuberculin test indicates early tuberculosis by a general reaction in the majority of cases, before it can be detected by other methods, the X ray excepted.
2. The dose to accomplish this is from 5 to 10 milligrams of Koch's original tuberculin.
3. No injurious results occur from tuberculin in these doses.
4. Proved tuberculosis in a more or less advanced stage may fail to give a general reaction with doses of from 10 to 12 milligrams.
5. Syphilis gives a reaction in an undetermined proportion of cases.
6. A non-tuberculous person may give a general reaction with a dose above the maximum used in the test.
7. The reaction may be delayed from 6 to 24 hours.

These rules are to be observed in making the test:

1. Always use the same tuberculin and of standard strength.
 2. Use aseptic precautions in giving the injections.
 3. Make the injections deep into the muscles.
 4. Keep a 2, 3 or 4-hourly chart of the temperature if possible, beginning 24 hours before the injection.
 5. Allow several days to elapse before repeating the test.
 6. In early cases, depend upon the general reaction; in later cases, if the general reaction is wanting, carefully look for the local.
- (V. Ruck says the reaction in some syphilitics indicates local latent tuberculosis in these, and confirms the delicacy of the reaction.)
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JUSTUS' TEST FOR THE DIAGNOSIS OF SYPHILIS.—Cabot and Mertins (*Boston Med. & Surg. Journal*, April, 1899) report a series of observations upon this sign. It is to be remembered that this consists in the sudden fall in the hemoglobin percentage of from 10 to 20, after a mercurial inunction or injection. The results of the

observations of Cabot and Mertins are, in the main, confirmatory of the claims of Justus. All the cases of syphilis reacted strongly, and in 33 control cases only one positive reaction occurred. The results given are: 1, positive reaction in seven cases of syphilis; 2, negative reaction in thirty-two control cases of diseases other than syphilis; 3, positive reaction in one case of chlorosis.

The seven active syphilitic cases lost an average of 21 per cent. of hemoglobin after a single inunction; in one case of malaria, in which a chill occurred just after the inunction, there was a loss of 10 per cent.; and in the case of chlorosis the loss was 13 per cent.

SOME SALIENT POINTS IN THE TREATMENT OF HIP DISEASE.—McKenzie (*Medical News*, August 5, 1899) summarizes as follows:

1. Hip disease is a local manifestation of a constitutional disease.
2. Early operative treatment is seldom justifiable.
3. When softening can be determined the surgeon should operate and obey indications, observing all care not to needlessly injure the mechanical integrity of the joint.
4. In the subsequent management of the wound asepticism and antisepticism must be carefully observed.
5. From the earliest moment efficient protection for the joint should be secured and constantly maintained by a well-fitting mechanical appliance.
6. A proper splint should fulfill two indications, i. e., secure rest for the affected joint and prevent deformity. No effort should be made to employ the splint as a crutch; ordinary crutches should be used. In the adjustment of the splint the knee should be slightly flexed.
7. Constitutional treatment is indicated as in other tubercular affections. Great emphasis should be laid on obtaining the freest exposure to direct sunshine and fresh air. Free use of iodoform is a valuable adjunct.
8. After excision a perfect recovery never follows, because the mechanical integrity of the joint is not preserved.
9. Following mechanical and constitutional treatment complete restoration of function is sometimes obtained.
10. Even when breaking down of tissue occurs which necessitates incision, there is sometimes a perfect restoration, and frequently a highly useful return of the joint function.

ON TWO CASES OF TRAUMATIC RUPTURE OF THE COLON, ETC.—Geo. Henry Makires (*Annals of Surgery*, August, 1899) concludes :

1. The diagnosis of rupture of the colon is very difficult, and is made by exclusion, and often needs an explorative incision to be certain.
2. The degree of shock is very variable.
3. Pallor with sweating is a common condition.
4. Pain in the abdomen is a constant though not a continuous symptom.
5. Rigidity and tension of the abdominal muscles is a constant sign.
6. Abdominal distention comes on with peritonitis.
7. Abdominal tenderness may or may not be present.
8. Percussion may show cellular emphysema, absence of liver dullness, or loss of the normal tympany.
9. The most important symptom is a steadily rising pulse with loss in force.
10. Temperature rises as patient reacts from shock.

In twenty cases 15 per cent. recovered, but in this number only seventeen were operated upon, giving a recovery of 20 per cent. of cases operated upon.

THE PRINCIPLES OF THE TREATMENT OF INJURIES OF THE SPINAL CORD.—Percival R. Balton (*Annals of Surgery*, August, 1899), after reviewing the etiology, nature and method of repair of injuries of the spinal cord, reaches the following conclusions :

1. Cells and fibers of the cord are readily destroyed, and once destroyed are never regenerated.
2. Extradural hemorrhage does not give rise to cord lesions or symptoms, and requires no treatment.
3. Total lesions of the cord are irremediable, because the cells and fibers of the entire thickness are destroyed, are never regenerated, and are replaced by cicatricial tissue. The lesion thus is permanent, and requires no treatment.
4. In hematomyelia the clot is absorbed; its site persists as a cavity or is filled by newly-formed tissue; irregularities of circulation in the surrounding portions of the cord adjust themselves. There may be great amelioration of the symptoms. There is therefore no therapeutic indication, and no remedial treatment is possible.

5. In partial contusion of the cord the lesion results in permanent destruction of cells and fibers; disturbances of circulation adjust themselves. Repair is accomplished by cicatricial tissue. No treatment is available.

6. In open injuries of the cord there are destruction of cells and fibers and disturbances of circulation. In addition, infection may occur, or a foreign body be introduced and left in or lodged against the cord, and by its continued presence produce great disturbance of circulation and consequent extensive degeneration and necrosis of cells and fibers. Repair occurs by cicatricial tissue as before.

7. But here operative interference is indicated to remove foreign bodies, to facilitate disinfection, to prevent more extensive necrosis and to facilitate drainage.

SURGICAL TREATMENT OF TRIFACIAL NEURALGIA.—I think the operation should be done only when the autopsy is performed; in other words, I have never seen more than two permanent successes, and, to be very Hibernian, I doubt very much if they were permanent, because the patients passed away from under my observation within three years. If you should look up the "Index Medicus" and Chipault's French work, you will find there is an enormous literature upon this subject, from the analysis of which you will perceive that the operation is a very foolish one, except from the point of view of making a surgeon's reputation; and I think almost any remedy, like aconitia and others of the same ilk, will show just as large a number of successes.—[Landon Carter Gray.

I have never removed the Gasserian ganglion and never expect to do it. I believe the operation will become obsolete in the near future.—[Nicholas Senn.

I have never as yet had occasion to advise the Gasserian-ganglion operation. I have found the medical treatment of the severe trigeminal neuralgia, on lines similar to those advised by Dana, more satisfactory than is often believed, and I have more than once obtained complete relief for a considerable period. In but one case, in fact, have I had to advise an operation, and then I began with a simple excision of the peripheral branch of the nerve. This is not always of permanent benefit, but the period of relief is often very considerable, and I can now recall few cases that have been compelled or been willing to resort to the severer operations back

toward the foramina. I hold the removal of the ganglion as the last resort after medical treatment and the lesser operation have failed, and I have not yet been compelled to advise it. As to the pathology, there is certainly in the excised portions of nerve a degeneration. Whether there are also central changes is as yet undetermined.—[Phillip Coombs Knapp.

I have removed the Gasserian ganglion but once—in a very old lady—and with fatal result.—[W. S. Halsted.—*Med. Rec.*, Sept. 9, '99.

THE TREATMENT OF DIPHTHERIA WITH THE ANTITOXIN.—Wenner (*Archiv fur Kinderheilkunde*, B. 27, H. 6, no. 2) reports the result of an analysis of the cases of diphtheria treated in the diphtheria department of the Children's Hospital at Zurich from October 25, 1894, to December 31, 1898. There were received 512 patients, of whom 52 died (10.1 per cent.) Diphtheria bacilli, however, were found only in 432, of whom 44 died (10.18 per cent.) Of these 432 cases only 8 were, for various reasons, not treated with antitoxic serum. Comparative observations show that the mortality for all cases has been reduced from 23 per cent. between 1874 and 1894 to 10 per cent. between 1894 and 1898. In the cases in which intubation or tracheotomy was required the mortality has been reduced from 63.7 per cent. to 19.4 per cent., and in those requiring no operative intervention from 15 per cent. to 5.8 per cent. It was found that as a result of the use of the serum the temperature declined rapidly to the normal in the majority of cases, whether the injection was made early or late in the progress of the disease. Exfoliation of the deposit is more rapid and in almost all cases uniform. The influence upon the stenotic manifestations is most distinct. After the injection extension of the disease to the pharynx and the larynx and exacerbation of the stenosis are not observed. Marked albuminuria, nephritis, and paralysis are not to be considered as sequelæ of the injections, but as a result of the activity of the diphtheria toxin. The serum causes various exanthems, often even fever, but these are never attended with further serious consequences. Individual serums present differences in this respect. In no case has death or injury to health resulted from the injections. For the foregoing reasons the employment of the serum is warmly indorsed for both hospital and private practice.—*Med. Record*, Sept. 16, 1899.

SCARLET FEVER REPRODUCED BY INOCULATION; SOME IMPORTANT POINTS DEDUCED THEREFROM.—Stickler (*Medical Record*, Sept. 9, 1899), attempting to find a protective virus against scarlet fever, injected ten children with mucus obtained from the throat and buccal cavity of a patient who had a mild attack of scarlet fever. Inoculations were made by injecting this material into, not under, the skin, the mucus being first treated with carbolic acid (1-600). In each instance genuine scarlatina developed, and the experiment was abandoned. All the cases thus produced were mild, and terminated in recovery. The following conclusions were drawn:

1. The mucus of the throat and mouth has been shown with absolute certainty to contain the contagium of the disease.

2. The early eruptive stage of scarlatina is exceedingly infectious, because of the presence in the discharges from the mouth and throat of the special poison of the disease.

3. The contagium of the disease being in the mouth and throat secretions, care should be taken not only to disinfect these parts as perfectly as possible, but to keep the tongue, mouth and lips moist constantly, if possible, in order to prevent the contagious principle being forced into the air of the room by the exhalations of the patient.

4. Mouth and nose wipes should be used instead of spit cups and costly handkerchiefs, and they should be destroyed by fire before the discharges on them dry, i. e., at once. If fire be not available, disinfecting solutions should be used strong enough to render the poison inert.

5. The soiling of bed clothing and personal apparel with mouth discharges should be prevented, if possible. In the event of such contamination they should be disinfected as soon as possible.

6. No toys or implements of any sort that cannot be boiled or subjected to the strongest germicidal solutions should be given the patient, as they are apt to become soiled by the mouth secretions.

7. Those who minister at the bedside should be especially careful as to personal contamination and disinfection from the moment they enter the room.

8. The nostrils should be taken thorough care of, as the morbid matter which finds its way into these parts will, in the dry state, easily find its way into the atmosphere of the room, thus making the spread of the disease more probable.

A NEW OPERATION FOR INGUINAL HERNIA.—Carl Beck (*Medical News*, September 16, 1899) describes his new operation as follows:

The incision is made down to the internal surface of Poupart's ligament alongside the outer margin of the rectus muscle, exposing its lower third down to the shelving portion of Poupart's ligament. The sac is isolated from the cord, and ligated and cut off within the internal ring. While the cord is held away the cut aponeuroses are dissected backward, and an oblique incision is made which divides the lateral fibers of the rectus muscle transversely to the extent of about one-third of its width, a little below the lower third of the muscle. The incised fibers are then so far severed from the remainder of the muscle that their upper portion when turned downward will reach Poupart's ligament without any considerable tension. This turned flap is now fastened to the conjoined tendon at one side, and to Poupart's ligament on the other, with formalin catgut after the cord has been placed upon it so that the cord rides, as it were, on the muscular flap. The gap caused by the resection of the flap is now covered by uniting the outer margin of the rectus muscle with the broad abdominal muscles. Then the cut aponeuroses are united above the cord by a continuous suture, thus forming a very strong posterior muscular wall, which in large and direct hernias may be of importance. It may also be that the removal of the sac may thus be rendered unnecessary in small hernias.

A RARE OBSTETRIC ACCIDENT.—Dr. H. Mallius (*Lancet*, Aug. 19) attended on July 29 a woman, a primipara, with reference to whose case he was rather anxious, as she had early in her pregnancy exhibited a tendency to eclampsia. On arrival at her house he was told that she had already had two "stoppages." Finding the os to be fully dilated, he gave chloroform and proceeded to apply forceps. The blades slipped over the head with the greatest facility, but when it came to locking the handles, that of the upper blade refused to coapt with its fellow, notwithstanding the most careful manipulation. After several failures he decided to withdraw the forceps and reapply them. The lower one came away easily, but on attempting to extract the upper one he found it impossible to do so for more than a certain distance. On seeking for the cause of the difficulty the tip of the blade could be felt to be wedged between the head and a much smaller body of an equally firm na-

ture. Any traction on the handle only served to bring this smaller body lower down and increase the impaction of the blade. As the pains were strong and regular and the head was steadily descending, he determined to leave things to nature and await the solution of the puzzling phenomenon, doing nothing beyond guiding the handle of the imprisoned blade in the right direction. As the delivery of the upper shoulder and arm followed that of the head the tip of the blade came into view, resting in the bend of the elbow, the hand and forearm having, through some extraordinary mischance, slipped through the fenestra of the blade. As might have been anticipated, the arm was for some days somewhat deficient in power as a result of the accident, but at the time of writing was steadily improving. Never having heard of such a case, Dr. Mallius wrote to Dr. G. E. Herman, the experienced author of "Difficult Labor," to ask if he had ever met with a similar one. In a courteous reply he stated that he had never met with or heard of such a case.—*N. Y. Med. Jour.*, Sept. 16, 1899.

EPIDEMIOLOGY AND BACTERIOLOGY OF CEREBRO-SPINAL MENINGITIS. H. Jaeger (*Deutsche medicinische Wochenschrift*, July 20, '99) believes that time has proved the correctness of his observation that the meningococcus is the cause of epidemic cerebro-spinal meningitis. Since his original publication he has examined seventeen cases, in all of which the meningococcus was discovered. Some of these were epidemic and some sporadic, and they furnished examples of the transformation of the disease from the epidemic into the sporadic form. Jaeger has no doubt that the microörganism is entirely different from the pneumococcus and can be fairly readily distinguished from it. It is more difficult to distinguish it from the staphylococcus, however, and this difficulty has, in his mind, led to the statements made by Hunermann, whose work was abstracted in this journal. Jaeger has no doubt that Hunermann found both staphylococci and true meningococci in his cultures, but that he has confused the two. The distinguishing characteristics of the meningococcus as against the staphylococci are that the former grows but slowly if at all on gelatin without liquefying it, while the staphylococci liquefy it rapidly. The reason that the meningococcus has been so frequently found in the nasal mucus and other locations without causing the disease, is that it is a widespread

microörganism, and is practically always present, but human beings have, as a rule, but slight disposition to the disease; all the epidemics are likely to be small. Jaeger has demonstrated himself, that the microörganism can stand drying for so long as ninety-six days, and there is evidence of the microörganism having remained present for so long as three years after an epidemic, and then having caused another outbreak.—*Phila. Med. Jour.*, Sept. 16, 1899.

THE PRIMARY CHANNELS OF TUBERCULOUS INFECTION IN CHILDHOOD. Dr. George F. Still (*British Medical Journal*, August 19, '99), in a paper presented to the last meeting of the British Medical Association, arrives at the following conclusions:

1. The commonest channel of infection with tuberculosis in childhood is through the lung.

2. Infection through the intestine is less common in infancy than in later childhood.

3. Milk, therefore, is not the usual source of tuberculosis in infancy, perhaps owing to the precautions taken in boiling, sterilizing, etc.

4. Inhalation is much the commonest mode of infection in the tuberculosis of childhood, and especially in infancy.

5. The overcrowding of the poor population in the large towns is probably responsible for much of the tuberculosis of childhood, and prophylaxis must be directed to the prevention of this overcrowding, the improvement of ventilation, and the inculcation of the extreme importance of fresh air during the earliest years of life.—*N. Y. Med. Journal*, Sept. 16, 1899.

THE MICROÖRGANISM OF SCARLET FEVER.—Class (*The Sanitarian*, August, 1899) has found, as he believes, the microörganism of scarlet fever. It is a diplococcus, resembling, as ordinarily seen on freshly made slides, a large gonococcus. The size varies somewhat, but is always considerably larger than the pus-microbe. Usually these cocci occur in bunches of from ten to fifty. Streptococcic forms are occasionally met with. The organism has no capsule. It does not show any spores, has no flagellæ and under examination by the hanging-drop it does not show any independent motion. It is decolorized by Gram's method, although not to the same extent as the gonococcus. The germ described has been cultivated from

the scales in about thirty typical cases of scarlatina. It has also been found in the angina of scarlatina, and in cases of angina occurring in persons exposed to scarlet fever in whom no eruption shows. The writer also found it in the throats of children in a family, one member of which had scarlatina, although the children were well at the time the culture was made. Subsequently these children developed scarlatina, and the germ was cultivated from their scales. Class hesitates to say that this is the specific germ of scarlet fever. He is making further experiments along the same lines. A culture of the microörganism injected into the ear veins of swine has produced a disease closely resembling scarlatina in the human being. From the blood and scales of the inoculated animal the same organism has been isolated. The germ will not grow in agar-agar nor in bouillon. Class used a glycerin agar-agar, to which was added a thin paste containing five per cent. of dried and sifted garden earth, mixed with bouillon and boiled.—*Med. News*, Sept. 16, 1899.

TREATMENT OF BOILS AND CARBUNCLES.—Philippson (*Therapeut. Beil. der Deutsch. Med. Woch.*, May 4, p. 31) says the three most useful agents for inhibiting the growth of the staphylococci, which are the cause of boils, are alcohol, benzoic acid, and salicylic acid. When fully developed a boil should be covered with a plaster containing 50 per cent. salicylic acid, which should be renewed three or four times a day, in order to remove the discharge. Maceration takes place, and the necrobiotic process is hastened so that the loosened core can generally be squeezed out after twenty-four hours' treatment. Rapid healing then follows under the salicylic plaster. The same treatment should be applied to carbuncles, though it is well to increase the activity of the plaster by covering it with linseed meal poultices. Multiple and deep punctures with the thermo-cautery often shorten the process, and if the carbuncle is spreading, deep incisions over the infiltrated margin are necessary. Boils on the face are very liable to lead to septicemia. They should be punctured with the galvano-cautery, the resulting slough removed with the sharp spoon, the cavity filled with powdered salicylic acid, and the whole covered with the salicylic plaster. For small furuncles, before they are fully developed, sponging three times a day with cotton wool soaked in alcohol, or in a solution of benzoic or 2 per cent. salicylic acid in alcohol, is sufficient. The inflamed parts

should not be touched with water or soap. Thus in general furunculosis baths must be avoided, since everything which macerates the skin adds to the chance of the organisms penetrating it. For disseminated furuncles a convenient method of treatment is inunctions twice a day of a 2 per cent. salicylic acid ointment, which should be continued for eight days after the appearance of the last boil. In children the application of a 50 per cent. salicylic acid plaster to large surfaces, such as the back of buttocks, causes the disappearance, not only of the tone furuncles and carbuncles, but of the deep subcutaneous abscesses which so frequently accompany them, and which usually require opening. It is of importance to discover the constitutional cause of the furuncles, and to treat it appropriately.—*Medical and Surgical Review of Reviews*, London, July, 1899.—*Philadelphia Medical Journal*.

A NOVEL TREATMENT OF CERTAIN FORMS OF HEADACHE, DEAFNESS AND TINNITUS AURIUM.—Van Sant (*Phila. Med. Jour.*, Sept. 9, '99) again calls attention to his method of treating these affections by syringing the accessory sinuses or middle ear with hot air supplied by a specially-constructed syringe. The hot air syringe consists of a small chamber containing in some instances a piece of carbon, in other instances having in its interior several diaphragms of metal. This chamber is held over a flame, preferably that of a spirit lamp, until heated. Coming off of the chamber, anteriorly, is a nozzle with adjustable tips. The air enters the chamber from behind and is heated while passing through. The instrument is small in size and is held by a handle placed at a convenient angle. The air to be heated is obtained from the usual air condenser. The amount of heat produced may be varied at will, from a mild warmth to a burning degree, and depends upon how hot the chamber is heated, how swiftly the current of air is passed through, and how close the nozzle is held to the surface to be treated. In some instances vapors of chloroform, menthol, etc., have been added to the heated air; this is done by placing a small quantity of the medicament in the little cup found on one of the tips, or by placing it direct in the catheter, when one is used.

In preparing the nasal chambers for treatment, the mucosa is first shrunk by applications of cocain or eucain, used alone or followed by watery solutions of the suprarenal capsule of the sheep.

The hot air is directed against the openings of the sinuses, or, if necessary, a small catheter is used. When the middle ear is treated the air is passed through a eustachian catheter.

The treatment, when properly carried out, is not painful, but rather agreeable to the patient.

MALARIA OF A PERNICIOUS FORM CURED BY HYDROTHERAPY AFTER THE FAILURE OF TREATMENT BY QUININ.—Lemoine and Veuillot (*Le Nord Med.*, July 15, 1899) relate the history of a patient, aged 31 years, who suffered from malaria of an aggravated type. Chills and fever occurred irregularly, and were temporarily and partially relieved by the administration of from 30 to 60 grains of the sulphate of quinin per day. Hypodermic injections of quinin and of cinchonidia were equally unsuccessful. Things had gone on in this manner for three months, and the patient had lost all appetite, and vomited almost all food. The medicine was discontinued, and the patient was subjected daily to treatment by a stream of cold water directed upon the chest, arms, back and legs. At first the douche was given for only ten seconds, but the time was gradually increased until it lasted a minute. The temperature of the water was 45°F. The chills and fever disappeared almost immediately, the general condition began at once to improve, and in a short time the patient was entirely well.—*Medical News*, September 16, 1899.

BOOK REVIEWS.

Any medical book can be obtained through the **Lancet** at publisher's prices, postage free. Terms cash. The usual discounts are allowed.

A Textbook of Diseases of the Nose and Throat. By D. Braden Kyle, Clinical Professor of Laryngology and Rhinology, Jefferson Medical College; Consulting Laryngologist, Rhinologist and Otologist, St. Agnes' Hospital; Bacteriologist to the Philadelphia Orthopedic Hospital and Infirmary for Nervous Diseases; Fellow of the American Laryngological Association, etc. With 175 illustrations, 23 of them in colors. Philadelphia: W. B. Saunders, 1899. Price, \$4.

This book has been looked for with much interest, and in many ways is a departure from the path followed by most American manuals on the subject; of especial worth is the exceeding valuable and scientific exposition of the pathologic aspect of the subject, many of the illustrations, especially those in colors giving the microscopic appearances, being the most beautiful it has been our fortune to see, while the text is quite up to what we would expect from the author's well-known ability as a pathologist. These illustrations in particular are taken from the author's individual preparations. The other illustrations, too, are often original, and always extremely well selected. Dr. W. W. Keen has contributed a valuable chapter on his method of partial and complete removal of the larynx. A comprehensive syllabus, in the form of a table, precedes each chapter, and is a valuable feature. Numerous prescriptions will gladden the eye of him who seeks for information under the auspices of a sign of the zodiac. We note the absence of a sufficiently detailed method of removal of the turbinated bodies, and of opening the anterior ethmoidal cells. By the way, it is quite the fashion to slight the latter operation. Asch's operation for deflected septum seems to us to merit an extended description. The text, illustrations and general press work of the book are in Mr. Saunders' usual excellent style.

American Pocket Medical Dictionary. Edited by W. A. Newman Dorland, A.M., M.D., Assistant Obstetrician to the Hospital of the University of Pennsylvania; Fellow of the American Academy of Medicine, etc. Containing the pronunciation and definition of over 26,000 of the terms in medicine and the kindred sciences, along with over 60 extensive tables. Second edition, revised. W. B. Saunders, Philadelphia, 1899. Price, \$1.25.

This little book is to be commended for its completeness, its accuracy, which is not impaired by the necessary brevity, and for the handsome style in which the presswork and binding has been done. The flexible covers, thumb index, small size and clear type, make it an exceedingly handy reference book, and as we said before, it is very accurate in its definitions. Of the many excellent tables we are especially pleased with the complete table of doses, wherein doses are given in both the apothecaries and metric system, and a table giving comparative values of the English and French system of weights and measures. Not the least of the attractions is the price.

Annual Report of the Supervising Surgeon-General of the Marine Hospital Service of the United States for the Fiscal Year 1898 (Centennial Year). Washington: Government Printing Office, 1899.

The first 84 pages are devoted to matters of administrative detail, regulations, etc. The total expenses for the year ending June 30, 1898, were \$600,131.45; for the quarantine service, \$155,219.85. From page 85 to 226 is taken up by reports and histories of fatal cases, with autopsies, some of which are quite interesting. The next section consists of contributed articles of general medical and surgical interest by Passed Assistant Surgeons Woodward, McIntosh, Cobb, Stoner and Young, Assistant Surgeons Cofer, Oakley, Greene, Mathewson and Eagleson, and reports from Acting Sanitary Inspector Havelburg. The next succeeding section has already appeared in pamphlet form—a symposium on “Yellow Fever, its Nature, Diagnosis, Treatment, Prophylaxis, and Quarantine Regulations Relating Thereto.” The balance of the book consists of service reports, investigations of the origin of yellow fever and smallpox outbreaks, and a summary of the quarantine work done by the service. The preliminary report of Geddings and Wasdin on the etiology of yellow fever is of especial interest. They had isolated the bacillus icteroides of Sanarelli in 81.25 per cent. of the cases examined. Geddings believes that the “bacillus icteroides of Sanarelli is the specific agent in the causation of yellow fever.”

Treatment of Pelvic Inflammation Through the Vagina. By Wm. R. Pryor, M.D., Professor of Gynecology, New York Polyclinic; Consulting Surgeon, City Charity Hospital; Visiting Surgeon, St. Elizabeth Hospital, New York City. With 110 illustrations. Price, \$2 net. Philadelphia: W. B. Saunders, 1899.

A small part of the gynecologic science that relates to the inflammatory diseases of the pelvis has been well treated by the brilliant author. In the majority of these diseases he believes that they are more amenable to surgical interference, but at the same time he fully considers the milder methods of treatment. The book is hence valuable to both the general practitioner and specialist.

The Hygiene of Transmissible Diseases—Their Causation, Modes of Dissemination, and Modes of Prevention. By A. C. Abbott, M.D., Professor of Hygiene and Bacteriology, and Director of the Laboratory of Hygiene, University of Pennsylvania. Philadelphia: W. B. Saunders, 1899. Price, \$2.

This is a good book, well printed and well written. The section on malaria is of particular interest to us, and while larger and more comprehensive works on this special subject are obtainable, the general practitioner, in this particular little book, gets the gist of the subject in a very few pages, which are also well illustrated. The different tenia receive careful attention, and are well pictured. In short, it affords us pleasure to commend this book.

BOOKS AND PAMPHLETS RECEIVED.

The Treatment of Pelvic Inflammations Through the Vagina. By Wm. R. Pryor, M.D., Professor of Gynecology, New York Polyclinic; Consulting Surgeon, City (Charity) Hospital; Visiting Surgeon, St. Elizabeth Hospital, New York City. With 110 illustrations. W. B. Saunders. 1899.

A Textbook of Diseases of the Nose and Throat. By D. Braden Kyle, M.D., Clinical Professor of Laryngology and Rhinology, Jefferson Medical College; Consulting Laryngologist, Rhinologist and Otologist, St. Agnes' Hospital; Bacteriologist to the Philadelphia Orthopedic Hospital and Infirmary for Nervous Diseases; Fellow of the American Laryngological Association, etc. With 175 illustrations, 23 of them in colors. W. B. Saunders. 1899.

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Centennial Year. Annual Report of the Supervising Surgeon-General of the Marine-Hospital Service of the United States for the Fiscal Year 1898. Washington: Government Printing Office. 1899.

Report of Surgical Operations at the Briggs Infirmary of Dr. Chas. S. Briggs and Samuel S. Briggs, during its eighth session, from September 10, 1898, to August 1, 1899. Reported by J. E. Bell, M.D., Nashville, Tenn. (Reprinted from *Nashville Journal of Medicine and Surgery*, July and August, 1899.)

Advice to Gonorrheal Patients. By Fred. C. Valentine, M.D., (Reprinted from the *Philadelphia Medical Journal*, July 8, 1899.)

One Hundred and Sixty-six Cases of Cancer of the Pregnant Uterus Occurring Since 1886. By George H. Noble, M.D., Atlanta, Ga. (Reprinted from *Atlanta Medical and Surgical Journal*, July and August, 1896.)

Chronic Interstitial Nephritis: Treatment of the Heart Therein. By Arthur R. Elliott, M.D., Chicago. (Reprinted from *Journal of American Medical Association*, July 15, 1899.)

Some Remarks on Chronic Bright's Disease. By Arthur R. Elliott, M.D., Chicago. (Reprinted from the *Med. Record*, July 15, '99.)

Rubber Gloves or Gauntlets: Their Use by Physicians and Surgeons. By J. E. Summers, jr., M.D. (Reprinted from the *Journal of the American Medical Association*, July 8, 1899.)

Nephro-Ureterectomy for Traumatic Hemato-Hydro-Nephro-Ureterosis. By John E. Summers, jr., M.D. (Reprinted from the *Medical Record*, July 29, 1899.)

Empyema of the Gall Bladder. By J. E. Summers, jr., M.D., Omaha, Neb. (Reprinted from *Western Medical Review*, Lincoln, Neb., June, 1899.)

NEWS AND NOTES.

DR. T. J. CROFFORD returned from his vacation on Sept. 15th.

DR. W. S. WEBB spent the last two weeks of September in Hot Springs.

DR. J. L. MINOR spent the month of September recuperating in the East.

ST. LOUIS has broken ground for a new city hospital to cost several million dollars.

WE hear from the daily papers that the California Board of Health is considering the advisability of quarantining against consumptives.

THE fourth volume of the second series of the Index Catalogue of the Library of the Surgeon-General's office has been issued. It covers from *D* to *emulsions*.

THE eleventh annual meeting of the Tri-State Medical Society of Alabama, Georgia and Tennessee will be held in Chattanooga, October 24-26. Dr. F. T. Smith is the Secretary.

THE valuable series of special articles on "The Law in its Relation to Physicians," by Arthur N. Taylor, which has been running in the *New York Medical Journal*, was concluded in the number for September 16th.

MICHIGAN has a law prohibiting the marriage of any person suffering from gonorrhea or syphilis. Violation of this law is a felony, punishable by a fine of not less than \$500 or more than \$1000, or imprisonment in the penitentiary for a term not exceeding five years, or both. Husband or wife may testify against the other, and the privilege of medical secrecy is abrogated in such cases.

THE changes of service at the City Hospital occurred on September 1st, the following gentlemen going on duty for September and October: Physicians, Drs. Goltman and Haynes; Surgeons, Drs. Herman and Smythe; Gynecologist, Dr. Taylor; Obstetrician, Dr. Sale; Oculist and Aurist, Dr. Ellett. Drs. Meyer, Turner and Kennedy Jones are on duty all the time as Pathologist, Neurologist and Laryngologist respectively.

THE yellow fever situation to date of this writing comprises 200 cases at Key West, with about ten new ones each day, a fatal case at Port Tampa, confirmed by autopsy, the same at Jackson, Miss., and some other cases at Mississippi City and New Orleans. Extensive local quarantines have been put into effect in these neighborhoods, but so far Memphis and the State of Tennessee has done nothing at all.

THE program of the Mississippi Valley Medical Association has been issued. The meeting will be held in Chicago, October 3-6. There are twenty papers listed in the medical section and thirty-three in the surgical, the program containing most of the prominent names in medicine in the Valley. In addition to this program a series of clinics will be held daily at the different hospitals, which will be one of the most instructive parts of the meeting. Dr. H. Moyer is Chairman of the Committee of Arrangements.

PRIZES FOR WORK ON MALARIA.—The committee of the Societe des Etudes Coloniales, of Brussels, has offered two prizes for suc-

cessful investigations in malaria, each of the value of 2500 francs (\$500). The first is to be awarded to any one who shall considerably advance our knowledge of Laveran's hematozoon malarie in its cycle of existence, either within or outside of the human body. The second is to be conferred on anyone who shall determine the exact etiology of the so-called malarial hemoglobinuria, the fièvre biliaire hemoglobinurique of the French.—*Med. News.*

DR. MAX THORNER, of Cincinnati, died suddenly at 1 o'clock on the morning of August 27th at his home. He had just returned from his vacation, and after a hard day's work had gone to bed early. A member of the household was roused at 1 o'clock by the sound of some one falling, and found Dr. Thorner lying dead at the bath room door. Dr. Thorner was a laryngologist of great prominence, possibly the most prominent in the Middle West, by virtue of his high scientific attainments. He was a German graduate, and when he came to this country he could not speak English. He was Professor of Laryngology in the Cincinnati College of Medicine and Surgery, a Fellow of the American and Berlin Laryngological Societies; was 39 years old and unmarried.

THE TRI-STATE MEDICAL ASSOCIATION.—The sixteenth annual meeting of the Tri-State Medical Association of Mississippi, Arkansas and Tennessee will take place in Memphis, November 14, 15 and 16, 1899, in the Woman's Building. The rapidly-growing popularity of this aggressive organization of representative physicians from the territory contiguous and tributary to Memphis is such that in point of attendance and enthusiasm it has no superior in the South. At its last meeting nearly three hundred physicians were present during the sessions of the Association, and the list of papers read was very complete, the papers being of a quality far above the ordinary. Physicians from all portions of the States comprising this Association are urged to take a brief vacation from their arduous duties and come to this meeting. All railroads entering the city of Memphis will make the customary one and one-third fare rate, on the certificate plan. Titles of papers should be sent to the Secretary, Dr. Richmond McKinney, Porter Building, Memphis, Tenn.

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CLINICAL NOTES.

EXTREME ANEMIA, AFTER POST-PARTUM HEMORRHAGE, TREATED WITH NUCLEO - ALBUMENS AND BONE - MARROW.—C. F. Bachmann, PH.D., M.D., Allegheny, Pa., late Private Assistant to Prof. O. Huebner, University of Berlin, Privat Docent Charity Hospital, Berlin, also assistant to Prof. von Leyden, etc., etc., says:

The prompt and decisive results obtained in the following case of anemia, secondary to a severe post-partum hemorrhage, induce me to report it for publication:

Mrs. O. T., white, aged 23, primapara, weight 145 pounds; passed successfully through the ordinary diseases of childhood, and two years ago I treated her during an attack of typhoid fever, from which she completely recovered. About a year ago she became pregnant. The course of pregnancy was normal, with the exception of a slight edema and a varicose condition of the veins of the lower extremities. On January 2, 1899, she was taken in labor. Position, R. O. P. Owing to an excessively large head, I was obliged to apply the forceps without anesthesia. The placenta was firmly adherent, and, after an hour's wait, was delivered by hand. Scarcely had the placenta been delivered when a frightful hemorrhage occurred. I scooped out all clots and fluid blood and controlled the hemorrhage by injections of hot water, compression and tamponage. So much blood had been lost as to cause a subnormal

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temperature and a small, weak pulse of but 32 to the minute; extreme anemia, great shock and prostration, thirst, sighing respiration, etc. I administered strychnin sulph., gr. 1-20, hypodermatically; also, brandy and ext. ergot. The hemorrhage occurred at about 8 A.M., and by noon the patient had revived to some extent, but was suffering from nausea and occasional vomiting, for which I prescribed Liquid Peptonoids and Elixir Lactopeptine with good effect.

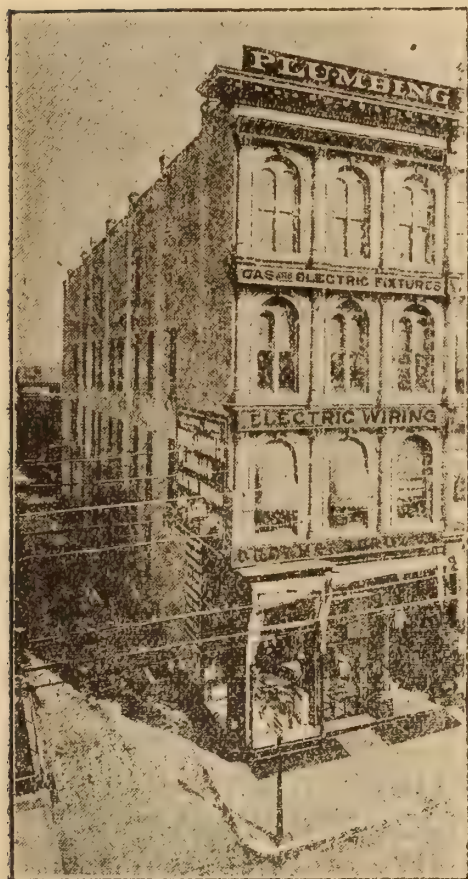
January 3, I found the patient somewhat improved, but very weak and almost bloodless, her lips being literally "as white as snow." I then ordered Hemaboloids (a preparation of the iron-bearing nucleo-albumens of the vegetable food stuffs, reinforced by bone marrow, beef peptones and nuclein) 3ij every three hours; also stimulants and a nourishing liquid diet. The excellent results obtained from this treatment are best shown by the following table:

	Weight	Hemoglobin	Red Blood
	Lbs.	Per Cent.	Cells.
January 3.....	135	61	3,450,000
January 7.....	138	66	3,509,000
January 14.....	140	71	3,760,000
January 21.....	140½	76	4,005,000

I did not see the patient again until February 12, when she appeared well and strong, and, to use her own words, felt "tip top." Weight, 140 pounds (the slight decrease probably due to excessive nursing); hemoglobin, 81½; red cells, 4,210,000. Patient was last seen a few weeks ago and was in first-class condition.

Considering the profuse hemorrhage and the extreme secondary anemia, the result in this case was indeed satisfactory. I have prescribed this preparation quite extensively and find it of great merit as a readily assimilable tonic in anemia, from whatever cause—chlorosis, convalescence, etc. Since this case I have used Hemaboids in several other cases of convalescence from labor with gratifying results.—*Med. Council*, July.

LATENT RHEUMATIC CONDITIONS.—The physician is frequently called upon to treat patients who, though not ill enough to be in bed, are not at all well. Their appetite is capricious, they sleep indifferently, or even if they sleep soundly they are not refreshed, and in the morning they are more fatigued and ill at ease than was the case on retiring. Upon awaking there is frequently an aching sensation in the loins, sometimes in the lower limbs, which is noticed upon getting out of bed or in dressing, particularly in putting on their hose or in lacing their shoes. As the day progresses this soreness may partially wear off, but there is at all times a vague, undefined, uneasy, painful feeling. A competent examination of the urine in these cases will, in almost every instance, be found to disclose a notable absence of the soluble urates. On the contrary, it may be loaded with the phosphates, and very frequently bile will



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THE MEMPHIS LANCET.

VOLUME III.

NOVEMBER, 1899.

No. 5

ORIGINAL ARTICLES.

RECTAL FEEDING IN CONNECTION WITH THE TREATMENT OF ULCUS VENTRICULI.*

BY ARTHUR G. JACOBS, M.D.

MEMPHIS.

The treatment of severe cases of ulcer ventriculi, particularly of those in which considerable hematemesis has occurred, has of late attracted much attention. It appears that surgery has monopolized this field, leaving to internal medicine only the lighter cases. The consideration of a case of ulcer ventriculi which came under my observation in the interne department of this hospital will show that in the severest form of ulcer of the stomach internal medicine possesses most effective resources.

The case I refer to is that of a young girl who was brought into the hospital in an extremely anemic condition due to great loss of blood in connection with ulcer ventriculi. Large quantities of various narcotics and styptics were administered without result. The hematemesis increased and the patient was referred to the surgical department for immediate operation. The operation was refused, however, because her general condition was so unfavorable. Rectal feeding, which had been begun, was then continued, with the most excellent and surprising results. We thus learned to appreciate the

* From the Medical Department of the Berlin Jewish Hospital. Visiting Physician, Sanitätsroth Dr. Lazarus.

great value of this mode of treatment in such cases and give it the credit it deserves.

Absolute and complete rest is, in the vast majority of diseases, our most effective remedy. In case of the fracture of a limb, immobilization of the affected part secures the desired result. In acute infectious diseases rest in bed is a very important factor, and the first to be applied. Rest in bed in case of inflammation and asepsis in operation are of equal importance in the eyes of the surgeon or gynecologist. In cases of the kind mentioned it is very easy to secure rest of the affected part. But, on the contrary, if an organ or part is affected upon whose constant and uninterrupted activity the whole organism depends, it becomes a most difficult matter to secure the desired rest.

The question, in case of *ulcus ventriculi*, then arises: how can we administer the necessary nourishment to the body, without employing thereby the stomach, which demands for its diseased condition immediate rest?

The best substitute for the stomach, in this case, is the rectum. While it must be admitted that the rectum, because of its poorly-developed secreting structures, is not in a position to substitute the stomach in this important capacity, nevertheless on account of its peculiar structure, it is well fitted to take up the function of resorption of prepared food. If we consider the physiology of the rectum, we notice that even in its normal condition the rectum shows considerable absorptive activity. The contents of the cecum and ascending colon are watery in character, whereas the contents of the lower part of the large intestine become more and more solid as they near the anus. The great number of lymphatic structures in the large intestine shows that it possesses great absorptive capacity.

Savory¹ proved long ago that toxic substances pass into the circulation much more rapidly when given per rectum than when given per os. In his experiments two dogs were used, the first being given strychnin per os, the second the same drug per rectum. The dog which received the poison per rectum exhibited toxic symptoms six minutes sooner than the one receiving it per os.

Brandl² proved, recently, that the resorptive capacity of the stomach was insignificant in amount, and of no practical worth. This conclusion was arrived at after careful experiments conducted at Tappeiner's laboratory. The pyloric orifice of the stomach was

tightly occluded by means of a rubber tampon. Then a solution of grape sugar (5 per cent.) was introduced, and after two hours withdrawn. It was discovered that almost the entire quantity of the liquid introduced was brought out again. The same results were arrived at with a 5 per cent. peptone solution, and a 1 per cent. iodide of soda solution.

On the other hand, the rectum possesses most excellent conditions for the processes of endosmosis, diffusion and filtration, upon which absorption depends. The epithelial layer lining the lower part of the colon and upper part of the rectum is so constituted as to promote, through endosmosis and diffusion, considerable absorption, although the absence of villi and the slight peristaltic action are rather unfavorable for filtration. Although the epithelium of the rectum is not well adapted to take on the pure biological function of the epithelium of the small intestine, it is nevertheless capable of carrying on even this process to some slight degree.

A practical application of the theoretical points considered will demonstrate that through rectal nourishment we are able to hold, for a time, at least, the organism in metabolic equilibrium, and possibly attain an increase in body substance. The material introduced in the rectum possesses the property of exciting peristaltic action and consequent ejection, but the enema can be so prepared that this risk is very small. The dissolved albumen, because of its capability of diffusion, and the carbohydrates, on account of their high endosmotic equivalent, succeed in passing with comparative ease into the circulation.

On the other hand, the conditions necessary for the absorption of fat, i. e., filtration and the function of living protoplasm, are not well met in the rectum.

After this short physiologic preface we shall take the case in consideration in which the preceding theoretical principles have been practically applied with the most flattering results. It may prevent our referring such cases to the surgeon, where with less dangerous, less severe, and more certain method of treatment, we can attain better results.

On October 8 an 18-year-old servant girl (E. J.) was brought into the hospital, after having vomited about five cupsful of black, coagulated blood. Her previous history showed that she had always been well, with the exception of a slight but protracted anemia. She had complained now and then of pain in the epigastric region. During

the last few days this pain had increased. That evening she vomited about 500 c. c. of blood. The following morning she vomited 1800 c. c. of blood. Patient is very emaciated, face extremely pale, pulse 120 and very soft. An operation was refused, as previously stated, because of the severity of her condition. Large doses of hydrastin and morphin stopped the hemorrhage. Patient receives four enemata daily, which she retains well. Each enema consists of 300 c. c. milk, two eggs, one pint of claret, five drops tinct. opii, and a little common salt.

On October 13 the first action of the bowels occurred, which consisted of a well-formed, brownish-yellow mass. The cleansing enemata, which are administered previous to the nutritive enemata, are completely absorbed, and in the stool no food remains could be found.

On October 14 she passed two black, foul-smelling stools.

On October 16 the patient received, for the first time, $\frac{1}{2}$ litre of iced milk per os, as a result of which she vomited about 700 c. c. of blood.

On October 19 hematemesis reoccurred (250 c. c. blood). The number of enemata was reduced from four to two daily, the patient having complained of considerable abdominal pain. Pulse was 132, very soft and dicrotic. The cleansing enemata were also omitted.

The next action of the bowels occurred about fourteen days later, and consisted of a grayish-brown mass.

On November 3, after complaining of nausea, she vomited 50 c. c. of a light-green, clear liquid, and the following day 200 c. c. of a sour-smelling fluid. This material contained abundant hydrochloric and lactic acids.

November 9. Enemata, given twice daily, have been completely absorbed. Patient was given $\frac{1}{2}$ litre of milk, with coffee, per os; neither nausea, vomiting or pain occurred.

On November 16 she was given solid food.

On November 19 the enemata were given for the last time. No pain in the stomach, no nausea, no vomiting; abdomen not sensitive to pressure; pulse somewhat rapid, tension good.

A blood examination on December 1 gave 45 per cent. of the normal amount of hemoglobin; otherwise nothing abnormal. Patient is improving slowly. The pulse continues somewhat rapid and dicrotic. The heart is otherwise normal. Solid food well digested.

On February 20 the patient was discharged as cured.

We have before us an exceptionally severe case of hematemesis, resulting from an ulcer of the stomach. Having been fed for nine days per rectum exclusively, the attempt was made to introduce a small quantity of liquid per os. This brought about another severe attack of hematemesis, so that rectal nourishment had to suffice for a period lasting *thirty-two days*, the body depending solely on the nourishment it received in this unaccustomed way. When we consider the enormous loss of blood and the weakened condition of the body resulting therefrom, and that, in spite of these most unfavorable circumstances, the method applied achieved such a brilliant result, we can well appreciate its value and give it the rank and credit it deserves.

Worthy of remark is the greed with which the organism absorbed the nourishment administered to it in this unusual way. Not only were the nutritive enemata absorbed, but the cleansing injections, which were introduced previous to them, were completely and rapidly taken up too. In addition, the organism offered very slight resistance to the enemata, as shown by the seldom-occurring stools.

In the above, as well as in another case of this kind, we observed an interesting, in fact remarkable, occurrence. We notice that, after having been fed for twenty-six days per rectum solely, she suddenly vomited a considerable quantity of fluid. This vomited material was strongly acid in reaction, and contained hydrochloric and lactic acids. The amount of fluid vomited was very great, and we could scarcely believe that the same consisted of pure gastric juice. We know that, without mastication and swallowing, without irritation of the mucous membrane of the stomach through the introduction of food, the amount of gastric juice secreted in a perfectly healthy stomach is very small.

The possibility of an antiperistaltic movement of the intestines being responsible for this phenomenon struck me as plausible and worthy of consideration. In order to clear this point, if possible, we applied a certain experiment on a second patient of this class, who happened to be at the hospital at about the same time.

This patient was an 18-year-old girl, born of tuberculous parents. She had been suffering for about three years from pulmonary tuberculosis. A slight infiltration of the apex of the right lung was discovered. During the last two months she had complained of severe pains in the epigastric region; nausea and vomiting after eating. An examination of the stomach contents showed the presence of hydrochloric acid; the total acidity amounted to 15. The vomiting and pain in the epigastrium increasing in severity, rectal feeding was begun. Although no nourishment per os was given, the vomiting continued. This vomited material consisted of a strong, sour-smelling fluid in which neither hydrochloric nor lactic acid was present.

On November 12 we added to the enema 1 teaspoonful of carbo-animalis, and the succeeding enemata were treated likewise.

On the morning of the 17th of November the patient *vomited a fluid containing innumerable black particles*, which were proven, by microscopic examination, to be particles of carbo-animalis. The matter vomited during the few days following contained this material also. Later, however, in spite of a daily addition of carbo-animalis to the enemata, the vomited material remained free of the particles.

The rectal feeding was continued for a period of *thirty-four days*, excepting a slight interval, during which an attempt was made to introduce nourishment per os. At the

end of this period light food was given by mouth and borne without trouble. Having been free from fever for some time, the patient was finally discharged.

In this case, as in the first, the enemata were almost entirely absorbed. The physiologic explanation of the fact that such immense masses of material introduced per rectum are so completely and rapidly absorbed, consists therein, that an antiperistaltic movement of the intestines conducted the food material to parts of the intestine better adapted to digestion than the rectum itself. The unquestionable appearance of carbo-animalis in the vomit, after the same material had been introduced per rectum, proves most positively the existence of an antiperistaltic movement of the intestines.

The occurrence of antiperistalsis in the intestines has, of late, been regarded as very doubtful. Pflüger³ has made some very careful experiments concerning intestinal movements. He used in his experiments resected portions of gut, and also the intestines of living animals. He irritated the intestines with a pair of forceps and observed, as a result thereof, two waves of contraction proceed from the point of irritation, one peristaltic, the other antiperistaltic. He emphasized the point, however, that the antiperistaltic wave never passes from the large to the small intestine.

Through experiments on rats and rabbits Christomanos⁴ and Dauber⁵ derived the same results achieved by Pflüger. They did not succeed in finding, in the small intestines, substances which had been introduced per rectum, in direct opposition to Grützner⁶, whose experiments, however, appear to have been conducted in a very careless and negligent manner.

In a recent article Plantenga⁷ has reconsidered the views of Grützner and has shown the errors and failures in Grützner's experiments. In our experiments these sources of failures do not exist, the particles of carbo-animalis being present in the vomited material in a respectable quantity.

Inasmuch as Pflüger's experiments have proven that antiperistaltic waves can occur, in addition to peristaltic, it is easy to understand that by removing irritation from the upper part of the intestines and applying the same to the lower division of the gut, the antiperistaltic waves can overcome the peristaltic.

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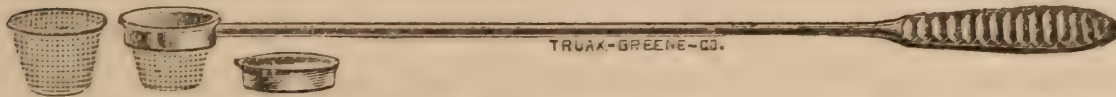
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A NEW GALL STONE SCOOP.

BY M. B. HERMAN, M.D.

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Every surgeon of experience appreciates the difficulty encountered in removing stones from the gall bladder, as well as from the urinary bladder. The method of extracting calculi with forceps is a very unsatisfactory one, often crushing the stone into fragments, which acting as a nucleus may be the cause of other stones forming later. In order to overcome this difficulty I have devised a gall stone scoop which answers the purpose admirably.



Illustrating a new gall stone scoop devised by Dr. Herman.

The scoop consists of a handle with a ring at one end. Into this ring fits another ring, and between the two is inserted a canvas bag. This bag can be changed at will. It can either be cleansed by washing and boiling or a new one inserted in its stead. The whole instrument can be sterilized by boiling without taking it apart. The handle is sufficiently pliable to be shaped to fit a given case. The instrument has the advantage of being light, readily cleansed, occupying little room, and avoiding the crushing of the stones.

Modus operandi: Guided by the index finger of the left hand, the instrument is passed into the gall bladder, the stones gently pushed into the bag, and the instrument withdrawn; this process to be repeated until all the stones are removed.

THE SIGNIFICANCE OF LACERATION OF THE CERVIX UTERI.

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Deaconess Hospital, etc., etc.

A score of years ago our knowledge of the diseases of the pelvic organs was very imperfect. Undue importance was attached to cervical lacerations and their operative reunion. He who has not followed the advance of this science and is deficient in pelvic diagnosis, is wont to the present day to magnify the importance of cervical lacerations. It may be of interest to consider this injury in the light of modern science.

Cervical lacerations are advantageously regarded as recent or old, simple or complicated lacerations. A simple or complicated laceration, recent or old, commonly speaking, has little or no practical significance. An exception to this rule is the recent tear extending high up. This is attended with hemorrhage, and calls for remedial measures. Without a complication a tear heals with or without reunion of its parts. The healed though unreunited tear has no significance except as the scar may prove an impediment to labor or dispose to vicinal tears in subsequent labors. It has no significance in the ordinary clinical sense.

Complicated lacerations are conveniently considered under two heads—complications by bacterial infection and complications which affect the supports and the position of the uterus. Bacterial complications are by saprophytes and by pathogenic bacteria. Saprophytic activity may retard but does not prevent healing, though it interferes measurably with reunion of the lacerated parts. The absorbing surface afforded by the cervical tear is small compared with the coexisting absorbing surface of the placental site or the possible coexisting perineal tear.

The cervical tears complicated by pathogenic infection are the tears of real clinical interest. In the recent tear, complicated by pathogenic infection, local and constitutional symptoms arise. The inflammation may limit itself to the cervical structures, or by blood

vessels and lymph channels may spread to adjacent and distant parts. Commonly, the cervical tear is not the only site of infection. The vagina, the perineum and the placental site in the uterus afford separate portways and carriers of infection. The grave significance of a laceration in the recent state and under such presence is known too well to require its description or valuation.

When the disease does not end fatally it is here of interest to consider the significance of a tear that becomes the seat of a chronic inflammation or that has healed with other defect. An infection by the ordinary bacteria of inflammation, excepting the gonococcus, is usually self-limited, here as elsewhere in the body ending in resolution. When the infection persists in the cervix it has the form of a mild superficial endometritis, and is curable except when it is complicated with disease in adjacent structures, which tends to keep up the cervical affection. A pelvic abscess, inflammatory disease and adhesions and uterine displacements militate against the curability of cervical inflammation. Here the persistence of the disease is distinctly and chiefly ascribable to these collateral conditions, and should be to them charged.

If we apply what we know about gonorrheal inflammation to cervical tears we will, by theorizing upon the matter, expect special conditions to obtain. A gonorrheal infection skims over the surface. It rarely affects the deeper parts by its own corrosive effect. However, when once it gains entrance to the submucous layers it develops along its course a firm and heavy cicatricial tissue. The portway to the deeper tissues is given in a cervical tear.

A gonorrheal infection gives rise to well-defined conditions and symptoms in the male. We recognize them in the form and symptoms of chordee and strictures of the urethra. In the female, too, a gonorrheal inflammation develops hyperplasia in the form of cicatricial tissue. To gonorrhea, I maintain, is owing the prominence given to cervical lacerations. These cases entail uterine congestion and enlargement, pelvic pain and congestion, various local and reflex phenomena, and a disposition to malignant growths at the site of the tear. When the gonorrheal inflammation extends beyond the cervix, cicatricial bands develop along its course. These bands, as they affect the bladder, the urethra, the rectum or the broad ligaments, give rise each to its special train of symptoms. These bands should be considered distinctively and treated separately.

No doubt often they go unrecognized, and the treatment applied to such cases is deficient.

The known frequency of the gonorrheal infection, the persistence commonly of the germs in the cervix and upon the vaginal vault in cases apparently healed (Werthheim, Doederlein, Burckhardt), is of interest here. The vaginal mucous membrane in time develops a tolerance of the gonococcus, which often quite conceals its presence. Upon occurrence of a trauma the gonococcus comes in contact with heretofore untainted tissues, which tissues are acutely susceptible to its influence, and upon which the gonococcus acts with unmitigated virulence. Happily for many cases the germ is not at all times of equally great virulence, and only rarely of such degree and effect as to give rise to great cicatricial formation. However, when a virulent gonorrheal inflammation develops, then the cervical laceration will attain to the importance formerly ascribed to cervical lacerations. In the consideration of cervical lacerations, little discrimination was shown in the past. Indeed, it should be said in extenuation of such erring that there was then too little knowledge of bacterial and pelvic diseases by which to make discrimination. As a consequence, however, we note the great difference of opinion by different authors on the significance of cervical lacerations. We know now why the repair of the cervical laceration in many instances failed of bringing the desired result. The symptoms had been wrongfully ascribed to the laceration *per se*, when in reality collateral conditions and complications existed, which were at fault.

I will not exclude other pathogenic microbes from occasionally giving rise to changes in the cervix which require operation. However, this must be regarded as the exception. Commonly, the gonococcus is the mischievous element in a laceration which gives rise to suffering. I am aware that such discrimination between the different microbes is not made by writers on this subject. Yet the facts which justify such differentiation may be taken from their writings, and the conclusions I draw may be verified by daily observation.

It remains to consider those cases where the cervical tear is associated with a relaxation and laceration of the perineum, or where tumors displace the uterus. In these cases the consequent displacement of the womb produces more or less uterine and pelvic

hyperemia. Incidentally the lacerated cervix is subjected to friction and eversion, and infection may result. Clearly here the cervical conditions are secondary, and the significance of the case is dependent upon the causative factors. The cervical laceration figures as a coincidence, and as such even commonly has little clinical significance.

By way of summary, it may be said that cervical lacerations without complications have little significance. Often the cervical laceration is complicated with disease in the adjoining structures, and the collateral conditions are responsible for the suffering rather than the cervical tear. Cervical lacerations attain significance as such when, firstly, in the recent state they give rise to an infection which spreads to adjoining structures; and secondly, in the remote state, when a pathogenic, notably a gonorrheal infection of the tear, occurs. Even in these cases a relatively small per cent. attain a degree of significance calling for operative recourse.

316 E. Michigan street.

A REPORT OF THE EYE AND EAR CASES TREATED AT THE CITY HOSPITAL IN MAY AND JUNE, 1899.

SERVICE OF DR. E. C. ELLETT.

BY HUGH BOYD, M.D.

MEMPHIS.

Resident Physician, City Hospital.

It is proposed in this paper to relate the ophthalmic and aural cases of most importance and interest coming under treatment during May and June, 1899, at the Memphis City Hospital. The first to which we would call attention are those for the relief of cataract.

We shall first give our method of proceeding and then mention the individual cases.

The bed is prepared as for any other patient, and put in such a position that a good light from a single source will fall on the patient's face. The operation is done with the patient in the bed in which he is to subsequently lie. The patient's face is washed with green soap and water, being careful not to get any soap in the eyes. Then a cotton sponge saturated with alcohol is rubbed over the face

until it is clean, care being taken about the lids, lashes and parts neighboring the eye to be operated on. The eye is then washed with a boric acid solution, and a clean towel is put over the forehead and scalp. The dressings consist of two circular or square pieces of plain sterilized gauze two inches and a half in diameter and of two thicknesses, two pieces of absorbent cotton the same size and shape as the gauze, three strips of adhesive plaster one-third of an inch wide, one five inches long, the others three inches. The instruments used are cleansed in boiling water and then in alcohol.

About ten minutes before the operation is to begin one or two drops of holocain solution are dropped in the eye, and repeated every two or three minutes until six or eight drops are used. This insures complete anesthesia of the eye and the pupil is not affected. It is an active antiseptic. No untoward effects have been seen, and withal it is an admirable local anesthetic.

The operator and one assistant prepare their hands in the usual manner, and the operator takes his seat back of the patient's head, operating on the right eye with the right hand, and on the left eye with the left hand. The lids being separated with a speculum, the usual cataract operation as described in all the textbooks is done. Preference is given to the operation with iridectomy, since even those of the greatest skill and experience cannot eliminate the danger of prolapse of the iris from cases operated on without iridectomy, and, without going into details, the disadvantages and dangers, immediate and remote, of this accident are such as to make it extremely undesirable.

At the completion of the operation the speculum is removed, atropia instilled and dressings applied. The pieces of gauze are put over both eyes and over them is placed the cotton. These are held in place by the adhesive strips, one extending across both eyes and ending at each temple; the other pieces begin at the center of the forehead, pass over the eye and end on the cheek just below the malar bone.

The patient is kept quiet in bed until the corneal wound closes, is given light and liquid diet. In twenty-four hours the incision is generally found closed, and atropia solution (grains iv to f $\frac{3}{j}$) is dropped in the operated eye three times daily. This is kept up; the dressings are changed once a day, and left off after the fourth

or fifth day, the patient then allowed to walk around the ward, and about the twelfth or fifteenth day is discharged.

The following is a list of those treated:

Name	Age	Sex	Kind of Cataract	Duration	Complications	Operation	Convalescence	Secondary Cataract	Result	Remarks
C. W.	71	F.	Hyper mature.	3 yrs.	Atrophy of suspensory ligament.	With iridectomy	Surgically uneventful	No.	Good. No test.	Convalescence marked by attack of mania.*
F. T.	25	F.	Capsular.	5 yrs.	Corneal opacities and post. synechiæ.	Extraction with preliminary iridectomy	Delayed closure of wound.	.....	Unimproved.	Operation done for relief of occlusion of pupil.
S. J.	75	F.	Senile.	7 yrs.	None.	With iridectomy	Good.	Yes.	Very good.	No test of vision yet.
S. J.	75	F.	Senile.	7 yrs.	None.	With iridectomy	Late re-opening of wound.	Yes.	Very good.	No test of vision yet.
P. S.	88	M.	Senile.	6 yrs.	None.	With iridectomy	Iritis.	Yes. (operation)	+11.00= $\frac{15}{30}$	.....
P. S.	88	M.	Senile.	6 yrs.	None.	Without iridectomy	No trouble.	No.	+10.00 \bigcirc +1.00 ey. ax. 90°= $\frac{15}{40}$	Very tough capsule removed.
W. W.	75	M.	Senile.	3 yrs.	None.	With iridectomy	Good.	No.	+6.00 \bigcirc +1.00 ey. ax. 180°= $\frac{15}{30}$	.....
C. L.	26	M.	Soft.	7 yrs.	None.	Without iridectomy	Good.	No.	+11.00 \bigcirc +2.00 ey. ax. 180°= $\frac{15}{25}$	Attempted simple linear extraction, but lens was too firm.

* See Memphis LANCET for July, 1899.

Corneal Affections. There were quite a number of corneal ulcers treated, and two cases of vascular keratitis, one of which was of traumatic origin, the other strumous. One colored boy was in with a continued fever to which the physicians in attendance could not assign a cause, and an interstitial inflammation of the lower half of the left cornea, which treatment did not seem to influence. It disappeared with the subsidence of the fever. His urine contained abumin, hyaline, fine granular and epithelial casts, leukocytes, blood corpuscles, and epithelium from the uriniferous tubules. His blood did not give the typhoid reaction, but showed some evidence of malarial infection.

Iritis. As many of the hospital patients are negroes, who are practically all syphilitic, it was natural to expect to see some cases of iritis. Those admitted during the months of May and June were all of the plastic variety and without any special features.

Glaucoma. One case of glaucoma was admitted, and the history being of interest is reproduced from a report made by Dr. Ellett to the Memphis Medical Society.

"J. W. M., age 55, was taken sick on Jan. 4th, 1899, with violent pains in his eyes and head, and became in a few days blind. It was said by his attendants that he had neuralgia, and would recover. Dr. N. R. Townsend, of Black Rock, Ark., saw him about May 1st, and made a diagnosis of glaucoma. He brought him to me May 31st. The case was typical double absolute glaucoma, with dilated pupils, shallow anterior chambers, steamy cornea, and balls of almost stony hardness. He was absolutely blind and in constant pain, requiring that he be kept under the influence of morphin. In consultation with Dr. Sinclair an operation (iridectomy) was advised for the relief of the pain, but declined. He was passing a small quantity of highly acid urine, and was therefore put on alkalin diluents and hot water and eserin (gr. vi to the oz.) locally. The balls became a little softer and the pain so much better that he was able to do without an opiate. The sight did not improve."

This case illustrates the disastrous results of a failure to make a diagnosis in glaucoma, since in many cases the sight can be saved if taken in time. Neuralgic pains in the head and eye, with loss of sight, are very apt to mean glaucoma, and in such case an eye surgeon should be consulted at once.

Panophthalmitis. One case of panophthalmitis was treated.

The condition resulted from getting a cinder in the eye, the small wound thus caused becoming infected. Although this had happened but five days before his admission, his eye was found to be full of pus, all details of iris, pupil, etc., being obliterated. The cornea sloughed, and as his pain subsided he took French leave in a few days after his admission.

This case illustrates the necessity of early removal of foreign bodies from the eye, and the importance of cleanliness in apparently trivial wounds of the eye.

Sympathetic Ophthalmia. One case of this distressing affection was treated.

The patient had been shot in the right eye fourteen years before, destroying the sight. Ten years later the left eye began to fail, then became quiet till a year ago, when it again began to lose vision and is now quite blind. The right eye was shrunk and was enucleated. The left eye showed evidences of neglected irido-cyclitis, a common manifestation of sympathetic ophthalmia. An iridectomy was proposed, but declined.

Mastoid Abscess. One operation was performed. The following are the notes of the case :

Mrs. L., aged 50, was sent to Dr. Ellett by Dr. N. F. Raines, of White Haven, on April 26, complaining of intense pain in and around the right ear of several weeks duration. It had begun as a typical acute otitis media, with intense pain and impaired hearing, the pain subsiding after a day or two with the appearance of a discharge at the meatus. It did not entirely disappear, however, but became more dull, constant, and at first frontal in location, but later more pronounced in the temporal and parietal region. She said there had been a profuse nasal suppuration, but this had ceased. She had when first seen a discharge from the right ear, the mastoid was painful, tender and swollen, there was a "dip" of the postero-superior wall of the canal, and a swollen and tender point in the course of the anterior temporal artery above and in front of the ear. She was put to bed, given a purge, the ear syringed with hot boracic acid solution at frequent intervals, and ice-cold applications made to the mastoid, on three hours and off one. She was a morphin habitué, and more on this account than for any great pain she required an opiate almost every night. Her temperature ranged from normal to 100°, and the pain and tenderness also changed, getting worse and better without "rhyme or reason." The discharge from the ear entirely ceased. On May 1st the mastoid pain and swelling increased, and operation was advised and done next day in the usual manner. As soon as the chisel went through the cortex pus appeared, and the cavity was curetted till the purulent and granulating debris was removed, and the antrum opened. The ear and wound were then packed, sutures put in above and below the exit of the gauze drain, and the patient put to bed in good condition. Her convalescence was not marked by any unusual or unfavorable symptom. She was quite noisy at night, more for want of morphin than any other reason, but her general condition was excellent. The dressing was removed for the first time on the sixth day, when the stitches were also taken out and the packing renewed. There was some pus around the gauze, but none at all retained in the wound. On the 13th day she was presented to the Memphis Medical Society, the wound, except at the exit of the drain, so perfectly healed that one who had not seen the operation could scarcely discern the extent of the incision. This soon closed, and the result was quite perfect.

GUNSHOT WOUND OF THE SUPERFICIAL FEMORAL ARTERY AND VEIN.

BY JOHN M. MAURY, M.D.

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J. S., colored, male, age 30, entered the City Hospital on the night of May 27, 1899, with a gunshot wound of the left thigh. The wound had been dressed temporarily by a physician outside the hospital, who reported that hemorrhage had been quite free, and that he suspected injury to some large vessel. On removing the dressing next morning the hemorrhage was very profuse, the blood spurting three or four feet. Elastic constriction was at once applied, and the patient removed to the operating room. The wound of entrance was a little to the inner side of the apex of Scarpa's triangle, and the wound of exit on the posterior inner surface of the thigh a little lower down. After cleansing the limb an incision was made through the wound of entrance, parallel with the long axis of the limb, and carried down, by blunt dissection, along the track of the ball. The vessels were soon come upon. The artery was almost completely divided, and the vein completely so. Lifting the anterior crural nerve to one side, the ends of the vessels were caught with forceps, which were left on, no ligatures being applied. The wound was lightly packed with gauze, and a sterile dressing applied. The limb was wrapped in cotton and kept slightly elevated. As the patient was quite anemic, a pint of deci-normal salt solution was given endermically. The packing was removed and the forceps taken off on the fourth day. The wound healed by granulation, without suppuration, and he was discharged July 5 entirely well.

I am led to report this case because of the slight mention of this condition in textbooks on surgery. Several authors whose books were consulted give nothing at all, others treat of injuries to arteries and veins separately, while one states that, because of the liability to gangrene of the limb in consequence of the injury, amputation had better be resorted to at once.

Primary amputation I think bad advice, because, as in this case, gangrene may not occur, and if it should, amputation can then be done at the seat of injury. In this way the patient can be given the benefit of the doubt, and at least an attempt is made not to sacrifice the limb.

The secret of preventing gangrene undoubtedly lies in the prevention of infection of the wound; therefore all precautions to gain this end should be employed. In addition the whole limb should be cleansed, and any abrasions found on it particularly cared for, lest they should, in the condition of lowered vitality of the limb, furnish the infection atrium.

111 Court street.

SUPERHEATED AIR IN TREATMENT OF DISEASE.*

BY M. GOLTMAN, C.M., M.D.

MEMPHIS.

Physician to the City Hospital; Surgeon Shelby County Poor and Insane Asylum and the Leath Orphan Asylum; Co-Editor Memphis Lancet, etc.

The application of heat for the relief of bodily ailments has been in vogue from time immemorial, chiefly in the form of steam, poultices and hot water. The amount of heated moisture that the human body can stand will average about 120° F.; this temperature continued for any length of time is inimical, however, to the integrity of the tissues. Stokers, puddlers and copper smelters, on the other hand, bear for hours temperature ranging from 170° to 200° F. in well-ventilated rooms, with, quite often, agreeable and soothing effects.

The essence of the quality of a high temperature is its dryness, and when absolutely dry a temperature of 400° F. can be borne for several minutes with most marked benefit in certain well-selected cases. The application of high degrees of heat to the entire body is dangerous at times. Its local application, however, finds few contraindications.

Heat will relieve pain, and often will abort simple inflammations. Its effect on specific processes is still *sub judice*, but nevertheless sufficiently encouraging to warrant further trial.

[The machine, which was exhibited, is made by Lentz & Sons of Philadelphia, and is well adapted for most all local applications.]

Technique of Application. The temperature is allowed to reach 200° F.; the patient's limb is then carefully but loosely wrapped, surrounded by a blanket or rough towels, special care being taken to allow considerable air space between the blanket and toes or fingers, and also that the limb just within the iron rim of the machine be thoroughly protected to prevent burning from the heated metal; the canvas hood is now made tight about the limb.

The average treatment should last from one-half to one hour. It has been my practice in delicate patients to give treatments rang-

* Read before the Memphis Medical Society.

ing from ten to thirty minutes and repeat them two and three times a day, with very marked benefit.

Pain in the fingers and toes is usually experienced in the beginning as a result of the acute hyperemia, but it rapidly disappears; when it does not, the temperature can be quickly reduced by regulating the gas pressure, or opening some, or all, of the numerous valves of the machine. Should the heat still be unbearable, the door of the machine may be left open and a large towel thrown in, which will absorb a large amount of heat and thus reduce the temperature, which should then again be gradually raised to the point of tolerance.

Immediately after the application the limb is washed with alcohol and quickly dried and massaged; the massage is of especial benefit in joint affections, especially in ankylosis. After the application the limb or part is extremely hyperemic and bathed copiously with perspiration, the skin is soft and pliable, and pain, if present before, is completely relieved or much improved.

Ringer has shown that heat impedes or destroys the electrical current of nerves, making it fair to presume that a part subjected to this influence is less able to conduct impressions to and from the brain. A gradual loss of weight and strength follows if the treatments are used for too long a time; seventeen pounds were lost in thirty consecutive treatments by a patient of O'Malley's; hence weak and anemic patients should not be treated daily, and the sittings should not be prolonged. The treatment must produce a sense of comfort, and not fatigue.

The temperature of the patient is raised from one-half to one and one-half degrees between 270° and 320° F., and the pulse will beat between 92 and 120. Sonnenberg says the temperature rapidly rises shortly after the application of heat, and considers this rise of temperature consecutive to the overheating of the blood. In fat people, however, the elevation of the central temperature is less demonstrable than in thin subjects, and the relief of pain not apparent for several hours after heating; often the pain is at first increased.

Microscopic examination of the blood drawn from the part subjected to treatment shows an excess of red cells.

Kirby and O'Malley report 300 cases treated at St. Agnes' Hospital in Philadelphia, with a grand total of 910 heatings, including

157 cases of recent sprains, 8 of the shoulder joint, 18 of the knee, 55 of the ankle, 24 of the thumb, and 23 of the fingers, with most excellent results. The Cook County Hospital reports of Chicago embrace an equally large series of cases, with even more gratifying results.

My own experience is of course limited, but nevertheless sufficiently encouraging to warrant the statement, that under no plan of non-operative treatment will hydrops articuli, functional ankylosis resulting from wearing retention apparatus (as in fracture), plastic synovitis, tendo-synovitis, and sprains, disappear with such rapidity as after treatment with superheated air; especially is this so when these conditions are acute. In chronic conditions, although the pain is relieved and much good done otherwise, the great benefits are seen mostly in acute cases. The destruction by high temperature of the tubercle bacillus makes it worthy of mention that a case of lupus and another of tubercular arthritis were apparently cured by hot air treatment. Kirby and O'Malley also report good results from it in the treatment of chronic varicose ulcers. Callosities in tendons and in joints, especially when accompanied with systematic movements and massage, are much benefited. The pain and swelling of arthritis deformans are much relieved, but the course of the disease is unaffected; and if used severely it may do great harm. My experience in this disease and in other neuritic processes has been so unsatisfactory that I have almost abandoned its use in such affections. In acute rheumatism the results are simply magical; I have on several occasions reduced swelling to the extent of two and a half inches with one application.

Porter Building.

AMENDED SPELLING.—The Department of Superintendence of the National Educational Association, at its meeting in Indianapolis, Ind., Feb. 17, 1898, appointed a committee to recommend a list of words with simplified spelling for use in the published proceedings of the Department. The report of the committee was duly made, and at a meeting of the Board of Directors of the N. E. A., held in Washington, D. C., July 7, 1898, the action of the Department of Superintendence was approved and the list of words with simplified spelling adopted for use in all publications of the N. E. A. as follows: Program (programme); thoro (thorough); thorofare (thoroughfare); tho (though); altho (although); thru (through); thruout (throughout); catalog (catalogue); prolog (prologue); decalog (decatalogue); demagog (demagogue); pedagog (pedagogue).

CORRESPONDENCE.

THE EXAMINATIONS FOR LICENSE TO PRACTICE MEDICINE BY THE MISSISSIPPI STATE BOARD OF MEDICAL EXAMINERS.

MEDICAL DEPT. TULANE UNIVERSITY OF LA.,
Sept. 25, 1899.

Editors Lancet :

DEAR SIRS—My attention has been called to statistics, attributed to the LANCET, of the examination of applicants for license before the Mississippi State Board of Health. I enter my protest against the injustice to medical colleges of such publications, unless accompanied by the statement that said Board permits undergraduates to be applicants, and the *division* of such statistics into two categories of "No. applied, No. passed, No. failed," viz.: as to (1) graduates, (2) undergraduates. Your statistics imply that the Tulane Medical College had twenty-five applicants who were graduates, and of these six failed. This natural implication is a false one, for I have reason to believe only one of our *graduates* failed; other failures were of undergraduates.

Yours truly,

S. E. CHAILLÉ, M.D., *Dean.*

[In reply to this letter we stated that the results were published as furnished by the Secretary of the Mississippi Board, in which we knew that graduates and undergraduates were both included. We do not desire to do any medical school an injustice, and suggested to Dr. Chaillé that we publish his letter. His reply is as follows :—ED.]

MEDICAL DEPT. TULANE UNIVERSITY OF LA.,
Oct. 2, 1899.

Editors Lancet :

DEAR SIRS—My letter was written in haste and not for publication. I still protest that it is a great injustice to medical colleges to publish the statistics of the Mississippi State Board as to applicants for license to practice medicine from the different colleges, unless these statistics be accompanied by the statement that said Board permits undergraduates as well as graduates to apply, and specifies the number of undergraduates as well as of graduates who failed. This protest you are at liberty to publish, or, as I believe would be wiser, make out of its substance an editorial, doing justice to the colleges and protecting them from the very unjust and injurious inference that all who failed were graduates. In truth, it is rare for a graduate of ours to fail, and a majority even of our second-course students are passed.

Yours truly,

S. E. CHAILLÉ, M.D., *Dean.*

THE MEMPHIS LANCET.

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THE MEMPHIS LANCET,
Porter Building,
Memphis, Tenn.

EDITORIALS.

STANDARDIZATION OF DRUGS.

It seems inconceivable that scientific physicians of the present day should dispute the advisability of reducing galenical preparations to a standard of strength. The history of medicine has been one long struggle to eliminate empiricism and bring therapeutics nearer to the basis of an exact science. It is true the human body is not a test tube, wherein may be mixed reagents to produce definite chemical reactions; nor can we always know the idiosyncrasies of individual patients. But that is no reason for failing to take advantage of advanced methods in the preparation of our remedies. Because medicine of standard strength will not always produce the same results in various individuals, shall we discard accuracy in dosage to the great majority, upon whom it will act properly? Did we do so, we must furl the banner our predecessors have carried in the van of progress. Their constant aim has been for exactitude in diagnosis and in treatment. Shall we discard the fruits of their labors, and be content today with a preparation of cannabis indica or of ergot that may represent ten times the strength of another specimen of the drug used yesterday? What matter if the test be physiological or clinical, if it be accurate? We want a unit as a basis, and to us it seems proper that a certain quantity of the active principle or principles should represent that unit.

Then every preparation of a drug should contain a definite quantity of such active principle, whether it were obtained from one or a thousand pounds of the crude drug.

It may be contended that the tests, chemie and physiologic, necessary to determine the ingredients of crude drugs are beyond the reach of the small dealer—that such changes will make the apothecary a mere shopkeeper, instead of a dispensing chemist. But we have listened to such arguments against every great improvement of our civilization. Let a new piece of machinery be invented, and the mill employees will shriek that the bread is taken from their mouths. Build a union depot, and the truckmen and hackmen will bewail their downfall. The great good bestowed on humanity in general is lost sight of in the petty ills to which that small set is subjected. It is the onward march of destiny; if we wish to lead that fateful march to better things we must not hesitate at convenience. If we stop to play at politics the wheels of progress will sweep on and over us, leaving new isms to arise from the mangled remains.

One great good to be accomplished by standardization would be the wiping out of any excuse for the existence of those petty thieves, the adulteraters and substituters of medicines. At present these people claim that possibly their drug was old, or lacking in the active principle, or else the preparation you had before was too active anyway. When caught up with, it is distinctly not their fault, or if attributable to them, certainly not their intention to defraud. In view of this we say most emphatically that the standardization of drugs would be the greatest advance possible at the present time by our profession. It is demanded by the spirit of the times, and if any of another era would clog the wheels, the sooner they step down and out, even weighted though they be with years of wisdom and experience, so much the better will it be for us and for our patients.

SO CALLED CHRISTIAN SCIENCE.

The cult, misnamed Christian science, which is neither Christian nor science, has apparently taken on new life. It has recently been decided that it is lawful to practice it in the State of Illinois, and we are informed that our own law cannot prohibit the practice of

this and other systems which do not administer drugs. The recent "passing" (i. e., death) of three prominent citizens in this city under the ministrations of its disciples, will, we hope, awaken some public antagonism to its practice and bear fruit in the limitation of its dangers. In one of the cases alluded to we are informed that proper medical attention could probably have avoided the unfortunate issue, and at any rate would have granted the sufferer the relief an opiate would have afforded—a relief which she desired and asked for, but which was denied her. Mark Twain has wielded his pen to good purpose in the October number of the *Cosmopolitan* against their extraordinary teachings, and we are glad to note that his article, written in a style combining keen satire with much serious argument, has attracted very general attention. It can hardly be doubted that the devotees of this cult are afflicted with a form of mental aberration, which, in extreme cases, approaches the fanaticism seen in the inhabitants of the far East, whereby persons under the influence of religious frenzy can permit the infliction of any amount of bodily injury. In a recent number of the *Wide World Magazine* is a description of one of these exhibitions, in which the victim is hooked in the back and lifted up by this hook on a sort of derrick, and thus suspended, forms the *pièce de résistance* of a religious procession. The enormities of the theory and practice of Christian science would not occupy the serious attention of sane people were it not for the suffering it encourages, the deaths attributable to it, and the spread of disease to which it contributes. The profession, being in a position to see these things, should assume the burden of the effort to secure such legislation as will make them no longer possible. It is unquestionably the privilege of the adult to be treated when sick by any person or system that he elects; but it is an outrage to expose children to it, or to allow it to be so administered as to encourage the spread of disease. It is a fad, and will die a natural death in time, but the number of its adherents and its great possibilities for evil would seem to make it imperative that legislation should be invoked to limit its pernicious activity.

REPORTS OF SOCIETIES.

PROCEEDINGS OF THE MEMPHIS MEDICAL SOCIETY.

Regular Meeting, October 3, 1899.

The Vice-President, Dr. F. A. Jones, presiding.

Present were Drs. F. A. Jones, Williams, Lane, Andrews, Sale, Barton, Alfred Moore, Buford, Goltman, Braun, Black, Ellett, Heber Jones, Hill, Venn and Meyer. Visitor, Mr. Kahn.

Dr. G. G. Buford made a Report of Cases.

I. *Amnesic Aphasia.* The patient was an elderly woman, and her principal symptom was the inability to remember certain words. Her memory was good till the present illness. She could not remember the doctor's visits from day to day, and could not apply the proper names to certain people and objects, and could not read certain words when written or printed. Her writing was not tested. There were no eye signs of intracranial pressure and a hemorrhage was diagnosed. The patient is improving.

II. The doctor was called to see a man in semi-coma, with cold extremities, sweat, bronzed skin, temperature of 104°F., and liver somewhat enlarged. He was passing a moderate quantity of urine. He was given an antipyretic and a purge; in response to which he purged so violently as to require an opiate. Later he complained of pain in the rectum, and was found to have impacted feces. The urine contained indican, and the case was regarded as one of *Toxemia from Intestinal Indigestion*. Indican is formed from indol, is eliminated in the urine, and is significant of intestinal indigestion. This urine will stain a napkin. Another dark urine is that containing melanin from a malignant growth. This urine turns black and will not decompose.

Dr. E. C. Ellett mentioned a case similar to the first one, which he saw last winter in consultation with Drs. Henning and Hall. The patient was an elderly lady, and presented the same symptoms that Dr. Buford's patient did. She was seen about eight months ago, and during this time has made but little change in her condition.

Dr. F. A. Jones reported a case of *Ludwig's Angina*, a disease to which his attention was called by an article on the subject in the *LANCET* by Dr. Tate, of Bolivar. The patient was a colored girl with a tubercular family history, rapid breathing, dry cough, temperature 102°F., and unilateral friction sounds. A week later there was a pleural effusion, which disappeared under reconstructive treatment, though there was broncho-vesicular breathing at the apex on that (left) side, with loss of flesh and continued fever. Two weeks later she developed a swelling of the left inferior maxilla, the temperature and physical signs persisting. There was no trouble with the teeth. The swelling grew larger, involving the neck to the clavicle, and interfering with respiration. An incision under ether found about three ounces of pus sacculated and close to the carotid artery. The cavity was curetted and packed, and while the local and general conditions have improved, the signs of tuberculosis persist.

Dr. M. Goltman reported a case of *Gangrenous Colitis*. The patient was a man aged 32, who had dysentery for five weeks before coming under his observation. He was then having from one hundred to two hundred evacuations of a little bloody mucus, with tenesmus, each day. In the rectum a large boggy, fetid mass was found, which proved to be a gangrenous cast of the rectum. The temperature was 105½°F. Malarial organisms were found in the blood, but though removed by quinin, the temperature continued up to 102° to 103°F. Under ether the sphincter was dilated, the bowel cleared of a large black slough, and the raw surface touched with nitric acid and irrigated. This was repeated twice a day for ten days, the whole rectum sloughing away. Pain in the left iliac fossa developed, followed by the passage of a slough eleven inches long and a profuse hemorrhage. The pain then disappeared. The patient rallied and was better for a week, when he passed a clot as large as two fists, containing a smaller cast. The patient then declined, with symptoms of concealed hemorrhage, the bowel movements continuing till death.

Dr. Heber Jones said that these cases are rare, and in his experience the treatment is very unsatisfactory.

Dr. Buford has followed out the rectal irrigation treatment of diarrheas and dysentery with good results. In one case somewhat similar to Dr. Goltman's the patient died of sepsis and inanition.

In another case recovery followed treatment with irrigation, codeia and antipyretics, but the patient has a cicatricial narrowing of the rectum and occasional fecal impaction which is relieved by castor oil.

Dr. F. A. Jones said that over 99 per cent. of these cases die. He had had two, both complicated with abscess of the liver, which was diagnosed ante mortem and confirmed post mortem. In one patient operation was not advised; in the other it was advised but declined. He referred to H. C. Woods' suggestion of nitrate of silver irrigations.

Dr. Goltman said that his patient had a hepatitis which was relieved by a fly blister. Stretching the sphincter relieves the pain and tenesmus. It must be done under general anesthesia.

Dr. Ellett recalled the fact that the treatment of these cases by stretching the sphincter and local application was originated by a member of this society, Dr. R. B. Maury, under the title of "The Topical Treatment of Dysentery."

Dr. E. P. Sale said that in a recent discussion of *Typhoid Fever* one speaker said that typical cases of the disease are rare now, the cases lacking the mental symptoms and tympanites. Since that discussion he had seen two such cases, apparently very mild, and both died from perforation after convalescence was established. He regarded both as a typical typhoid. Many cases of typhoid as it now occurs here are complicated.

Dr. Goltman has recently had a similar case.

Dr. Heber Jones does not see many cases of typhoid now, and has seen no cases that he diagnosed as typhoid this summer. His fever cases lack the typical symptoms of typhoid fever. All the cases he has ever seen die of perforation were typical cases. He asked the opinion of the society regarding the advisability of an ordinance compelling physicians to report their cases of typhoid fever, in order that the Board of Health might investigate the source and take precautions against its dissemination. He favors it. The blood test is probably the most reliable diagnostic sign, but of course the Board of Health would accept the attending physician's diagnosis.

Dr. Sale favors the ordinance, but thinks the trouble would come in making an accurate diagnosis.

Dr. Jos. Venn has seen cases of typhoid fever which, while lacking the typical clinical symptoms, gave a positive blood test (Widal).

Dr. Buford said that the commission appointed to investigate typhoid fever in the camps in 1898 found that local causes (as water, etc.), did not have much bearing, but the food, change of habits, etc., had. He has seen several typical cases and thinks the disease differs now from what it used to be largely on account of the difference of the food used then and now, yielding a different class of poisons. He thinks tuberculosis should also be reported, and said that in some cities the Board of Health sent out circulars of information in regard to the artificial feeding of infants.

Dr. Heber Jones is not willing to admit that food and drink are not direct transmitters of the disease.

Dr. Goltman said in regard to sewer gas, that Sternberg found that animals resisting inoculation of typhoid could be inoculated after they were exposed to sewer gas.

Dr. Alfred Moore drew a diagram of a typical camp, showing that the earth-pits are in close proximity to the commissary, the foodstuffs being constantly invaded by flies from the earth-pits.

PROGRESS OF MEDICINE.

THE HYDRIATIC TREATMENT OF PNEUMONIA.—Macalester (*Medical News*, Sept. 9, '99), after quoting authorities in support of his views, among which Penzoldt with an experience covering 2200 cases, mentions the following indications from Baruch: 1, to stimulate and invigorate the nerve centers with a view to enhancing the patient's vital powers; 2, to prevent and control heart failure; 3, to reduce the temperature; 4, to eliminate the toxins.

Pneumonia patients, especially children, being very susceptible to cold, the temperature must be carefully watched, and for this reason the cold chest compress is advocated. This is composed of three folds of linen or old muslin cut in a manner to fit the chest from above the clavicles down to the umbilicus, with slits in the axillary regions to form flaps and cover the shoulders. It is then wrung out of water so that it does not drip at a temperature of 60°F., snugly applied around the thorax, covered with a piece of closely woven, thin flannel of the same shape but at least an inch wider in all directions, and secured by safety pins. At first the

compress is changed every half hour, then every hour or two, until the patient's temperature is below 100°F., when it may be discontinued. The compress should not be covered with oiled silk, as this converts it into a poultice.

The wet pack is a more severe procedure, and is indicated in the more severe forms with high temperature.

Of course drugs are not entirely dispensed with.

THERAPEUTICS OF HOT DRY AIR.—Kessler (*Amer. Gyne. & Obstet. Jour.*) notes the following effects of hot dry air, used with a magnesia-padded apparatus:

1. A contraction followed in a few minutes by dilatation of the superficial arterioles and capillaries, causing a deep flush to spread over the whole body.

2. The pulse becomes full, strong, and increases from 10 to 25 beats per minute.

3. Increase of the temperature, taken by the mouth, of 1 to 5, rarely 6°, F.; the rectal temperature, normally higher, being usually about $\frac{1}{5}$ ° F. less than that of the mouth.

4. Induction of a profuse acid perspiration, with increased specific gravity.

5. Almost immediate relief from pain.

6. Relaxation of muscular spasms.

7. General sense of discomfort.

8. Loosening of small stiff joints.

9. Stimulation of the cutaneous nerves and lymphatic circulation.

10. Increase of the alkalinity of the blood, and a temporary increase of the number of corpuscles.

11. Decrease in edematous swelling.

12. Increase in the respiratory movements from 2 to 6 per minute.

13. Marked acidity of the sputum in gouty and rheumatic cases.

14. Nervous restlessness and muscular twitching, if exposed too long.

15. Slight thirst in some cases.

16. Decreased specific gravity of the urine passed immediately after leaving the hot air bath.

17. Limits the inflammatory reactions following the breaking up of adhesions, sprains, etc.

After a number of treatments the secondary results show :

1. Increased secretion of uric acid in lithemic cases.
2. Softening and absorption of deposits of urates, exuberant callus, fibrous adhesions, edema, etc.
3. Reduction and sometimes entire relief of albuminuria in kidney and cardiac disease.
4. Toning of the circulatory apparatus and excretory organs.
5. Moderate loss of weight in the slim, and greater loss in stout people.
6. Great improvement in some chronic skin diseases, and the disappearance of acne in gouty cases.
7. Temporary increase of soreness and nervousness in gouty and rheumatic patients during the absorption of urates and other deposits from the tissues.
8. Debility if subjected to baths daily for a long time.

Before the apparatus was used the patient was examined, and if found suitable he disrobed, donned a bath robe, and so attired entered the moderately-heated machine, leaving the head and as much of the body exposed as was deemed necessary. A cool, damp cloth was placed upon the head, and the temperature gradually raised to 250° F. After leaving the machine the patient was rolled up in a blanket, allowed to perspire for half an hour, massaged by a Swedish masseur, and then washed and rubbed with alcohol.

A CASE OF TETANUS TREATED WITH CARBOLIC ACID.—Woods (*N.Y. Med. Jour.*, Sept. 9, '99), having never seen a case recover under any other method of treatment, reports one case treated successfully with large doses of carbolic acid, but does not give credit to the twenty-odd observers who have reported cases treated by this method. Following is a synopsis of the treatment:

As it was impossible for the patient to swallow, ten minims of a ten per cent. solution of carbolic acid were used hypodermatically; fifteen minutes after the first dose twenty minims were injected; fifteen minutes after the second thirty minims were used. Thirty minims were continued throughout the day every half hour, with half a grain of cannabis indica (preparation not stated), which latter was discontinued at night. The carbolic acid was kept up

during the night in dram doses at longer intervals. The patient appearing improved the next day, half a dram of the ten per cent. solution was given every two hours. On the third day the patient was able to swallow, and was given a glycerin solution per os every three hours until the spasms ceased, and then three times a day until all rigidity was gone.

The patient recovered in three weeks. The characteristic urine appeared soon after the beginning of the treatment, but no inconvenience followed the use of the drug.

VAGINAL CELIOTOMY: ITS SCOPE AND LIMITATIONS.—Goffe (*Med. News*, Oct. 7, '99) says:

“During the past three years I have treated in this way almost every condition to be met with in the female pelvis—indeed, so thoroughly has the method commended itself to me that with three exceptions I have used it in every case that has come before me for operation. These cases have embraced every variety of disease from simple retroversion with adhesions to prolapsed and cystic ovaries, unilateral and bilateral salpingitis, ectopic gestation, fibroid tumors of the uterus, and dermoid cysts. This method affords opportunity for the most complete and radical work and at the same time lends itself to every form of conservative work upon the uterus and its appendages that has been suggested in the trend of recent modern gynecology. In no case have I yet consummated the operation of myomectomy, but in one instance this conservative measure would have been employed had it not been for the multiplicity of small tumors which contraindicated its application.

“In cases of simple retroversion of the uterus the organ is readily anteverted and delivered into the vagina. The appendages first of one side and then of the other readily follow after and are carefully inspected and subjected to whatever treatment may be indicated. The round ligaments are then shortened by simply looping them upon themselves and stitching the loops together and the vaginal incisions closed with a running catgut suture. This procedure has its most appropriate application in cases of retroflexion in unmarried women. Its advantages are that the healing process goes on unconsciously to the patient, without any more constitutional or local disturbance than normally attends a simple trachelorrhaphy. The patient herself is not conscious of even having had an incision made,

nor does she bear upon her person any trace of a surgical operation. Indeed, in many instances, the wound heals so kindly that often an expert gynecologist even after the lapse of only a few months might examine a patient and never suspect that an incision had been made.

“In cases of retroversion with adhesions of the uretus and appendages the adhesions are promptly broken up, the uterus and appendages delivered into the vagina as before, and such treatment applied as may be indicated.

“In cases of enlarged and cystic ovaries it is my custom in certain cases to excise the degenerated tissue, and in other cases, in which so extreme a measure is not indicated, to apply the ignipuncture, making in some cases as many as ten or twelve punctures with the actual cautery. When the indications demand it one ovary and tube are removed and such conservative work as may be indicated is applied to the opposite appendage. It is my effort and custom in cases in which the conditions justify it to leave a part of one ovary and at least the stump of the corresponding tube. In passing I may say that my experience in this conservative work grows more and more satisfactory. Four patients upon whom varying amounts of conservative work have been done have conceived and borne children, and satisfactory relief from pelvic symptoms has attended the other subjects to a gratifying degree. Large pelvic abscesses involving the tubes and ovaries, buried in exudate and firmly adherent to surrounding tissues, including both the intestines and the omentum, are easily, quickly, and satisfactorily dealt with and with far less shock to the patient, and a much smoother convalescence than formerly attended my work when done through the abdominal incision.”

THE SURGICAL TREATMENT OF FIBRO-MYOMATA.—Prof. Schauta (*Amer. Gyne. & Obstet. Jour.*, Oct., 1899), in a recent paper, draws the following deductions from his large experience in the operative treatment of myoma uteri:

1. Operative treatment for fibroid tumors is not legitimate except when they are the cause of troubles that are not to be conquered by other means.

2. Vaginal total extirpation should be considered as the safest and in the long run most successful operation. It should be per-

formed in all cases when the tumor does not extend above the level of the umbilicus, and when it can be easily drawn into the small pelvis.

3. For large, not easily movable tumors, wholly or partially intraligamentary, abdominal total extirpation should have the preference.

4. Supravaginal amputation, with intraperitoneal treatment of the stump, gradually should be set aside in favor of abdominal total extirpation, although the immediate results of the former are sometimes more favorable. It has been proved that there are more chances for absolute recovery when no part of the cervix has been allowed to remain.

5. In emergency cases supravaginal amputation with extraperitoneal treatment of the stump may be, as it affords facility for speedy and absolute extraperitoneal execution, an advantage not to be underrated in cases of extreme anemia, asphyxia, weakness of the heart and suppuration of necrosis of the tumor.

6. Vaginal enucleation of the broad-based, submucous tumors, by way of the dilated cervix, or by the vaginal formix, after anterior or posterior kolpotomy, with or without opening of the peritoneum, should be only resorted to in cases where there are special indications. Myomata being generally multiple it would not be likely that the operation would afford durable results, and therefore cannot be considered as less dangerous than the radical operation with removal of the uterus.

7. Curettage should be looked upon as an uncertain mode of treatment; is never wholly free from danger, and should be limited to rare cases of beginning myomatous development.

8. Castration should be strictly objected to on the ground of its not bearing comparison with radical operations with regard to reliability and immunity from danger. In quite exceptional cases, when it is not possible to perform supravaginal amputation with extraperitoneal treatment of the stump, it may now and then be resorted to.

9. It is not to be thought that the methodical use of forcipressure affords the patient advantages superseding the use of ligatures except in so far as it facilitates a speedy operation in typical cases. In cases of emergency or danger its use is certainly justified.

10. The full value of drainage of the supravaginal wound for furthering throughout the chances of asepsis and for the avoidance of exudation in abdominal as well as in vaginal total extirpation, should be always kept in mind.

11. The question if removal of the ovaries should be performed with vaginal or abdominal total extirpation is not yet decided. *Ausfall erscheinungen* (climatic symptoms) have been observed either way. If the ovaries are removed they appear immediately; if left back, after weeks and sometimes months.

ESOPHAGOSCOPY—ITS APPLICATION IN TWO CASES.—Gordon King (*New Orleans Med. & Surg. Jour.*, Oct., '99) reviews the history of the method of examining the esophagus by direct inspection, and calls attention to its superiority over the examination by sounds and probangs.

The principle of the method, as practiced at the present day, consists simply in the introduction into the esophagus of a long metal tube, through which, by means of a head mirror, the light is thrown upon the dark parts and permits of their being inspected and treated under light just as is done for the rectum, the vagina and other accessible organs.

The patient is made to lie supine upon a table with the head thrown back over the edge to straighten the spine and bring the mouth as nearly in line with the esophagus as is possible, then he is made to undertake, with the assistance of the examiner, what corresponds to the sword-swallowing act of the dime museum. This would appear to be a formidable procedure, but in reality is readily accomplished in most cases and with not too much discomfort to the patient. In a tractable patient this is *most* easily done without anesthesia, but in children and nervous persons, chloroform may be administered if urgently required. A little cocain sprayed into the pharynx will allay the irritability of the throat and facilitate the procedure. The instrument employed by Stoerck is supplied with a lobster-tail extremity which flexes one way, and in some cases is more readily introduced than the straight tube. This instrument is about eighteen inches in length, and reaches almost to the cardia; the other is shorter and better adapted to younger subjects. For all purposes a diameter of three-fourths of an inch is about the proper size, and this can be used for children over ten

years of age with safety. Subjects younger than this require a smaller tube, and the results are not as satisfactory, there being always some risk of lacerating the delicate mucous membrane of the pharynx or esophagus in very young children. Another class of patients in which these instruments are not to be applied are those cases in which there exists some curvature of the cervical spine or marked stiffness of the spine preventing sufficient extension of the head to permit of the tube being introduced into the esophagus.

Two cases are reported, one in which a malignant stricture low down in the esophagus was seen and diagnosed, and the other in which the absence of a foreign body was positively determined.

THE VALUE OF ANTISTREPTOCOCCIC SERUM IN THE TREATMENT OF PUERPERAL INFECTION.—The committee (*Jour. Obstet., etc.*, Sept., 1899) appointed by the American Gynecological Society to consider the question of the efficacy of antistreptococcic serum in the treatment of those forms of puerperal fever due to streptococcus infection, sums up the result of their studies as follows:

1. The study of the literature shows that 352 cases of puerperal infection have been treated by many observers, with a mortality of 20.74 per cent.; where streptococci were positively demonstrated the mortality was 33 per cent.

2. Marmorek's claim that his antistreptococcic serum will cure streptococcic puerperal infection does not appear to be substantiated by the results thus far reported.

3. Experimental work has placed grave doubts upon the efficiency of antistreptococcic serum in clinical work, by showing that a serum which is obtained from a given streptococcus may protect an animal from that organism, but may be absolutely inefficient against another streptococcus, and that the number of serums which may be prepared is limited only by the number of varieties of streptococcus which may exist.

4. Thus far the only definite result of Marmorek's work is the development of a method by which we can increase the virulence of certain streptococci to an almost inconceivable extent, so that one hundred billionth of a cubic centimeter of a culture will kill a rabbit.

5. The personal experience of the committee has shown that the mortality of streptococcus endometritis, if not interfered with,

is something less than 5 per cent., and that such cases tend to recover if nature's work is not undone by too energetic local treatment.

6. We unhesitatingly condemn curettage and total hysterectomy in streptococcus infections after full-term delivery, and attribute a large part of the excessive mortality in the literature to the former operation.

7. In puerperal infections a portion of the uterine lochia should be removed by Doederlein's tube for bacteriologic examination, and an intrauterine douche of four or five liters of sterile salt solution afterward. If the infection be due to streptococci the uterus should not be touched again, and the patient given very large doses of strychnia and alcohol if necessary. If the infections be due to other organisms, repeated douchings and even curettage may be advisable.

8. If the infection extends toward the peritoneal cavity, and in gravely septicemic cases, Pryor's method of isolating the uterus by packing the pelvis with iodoform gauze may be of service.

9. The experience of one of the members of the committee with antistreptococcus serum has shown that it has no deleterious effect upon the patient, and, therefore, may be tried if desired. But they find nothing in the clinical or experimental literature or in their experience to indicate that its employment will materially improve the general results in the treatment of streptococcus puerperal infection.

DOES REMOVAL OF THE OVARIES EXERT A BENEFICIAL INFLUENCE ON THE SUBSEQUENT PROGRESS OF MALIGNANT DISEASES?—Montgomery (*Jour. Amer. Med. Asso.*, Sept. 23, '99) says that his experience with the extirpation of the uterus for cancer has not impressed him with the fact that the individual enjoyed any special immunity against relapse after the removal of the ovaries. It does not seem unreasonable, however, that the ovaries may exert an influence on the circulation in the vicinity of the reproductive organs through the vasomotor system. Nature is economic of her forces. With the removal of the ovaries and the cessation of need for their performance of special functions, the unused organs are no longer so liberally supplied with nutrition, and hence temporary relief, but the history of cancer does not prove that it can be starved out, so relief

must be at best but temporary. A careful consideration of the subject forces him to the conclusion that the apparent relief is afforded through the vasomotor nervous system; that further experience is required to demonstrate not curability, but sufficient palliation and delay in the progress of the disease to compensate the patient for the discomfort of the additional operation; and that such an operation will only be of service if done during reproductive activity.

SURGICAL HINTS.—(*Intern. Journal of Surgery*, October, '99).

If you expect to use a thermo-cautery during an operation, see that your assistant wraps the handle in a sterilized towel before handing it to you.

Don't spend half an hour in carefully sterilizing your hands, and then wipe them on any old towel that is lying around. Work with wet hands if you can't obtain a sterile towel.

An enlarged prostate often projects, as it were, into the bladder, thus increasing the length of the urethral canal. Hence an instrument must often be introduced farther than usual in order to reach the urine.

Look at the foot when a patient complains of enlargement of the femoral lymphatics. A suppurating ingrowing toe-nail or any other septic condition of the toe or foot is probably at fault. If this is properly attended to the glands will soon subside.

Large glands in the neck of adults or old people are very apt to signify that a malignant process is taking place in the neighborhood; hence it is always well to examine the mouth, the tongue, the nose and the throat carefully in such cases.

In general operative work, it is always useful to have two kinds of artery forceps, pointed and blunt-jawed. The pointed artery forceps are most useful for vessels in and near the skin, as they crush less tissue. The blunt-jawed forceps permit more rapid and efficient hemostasis in the deeper tissues.

In the treatment of fractures of the long bones, it is practically impossible to bring the broken surfaces end to end in perfect approximation. Our object is simply to accomplish this as nearly as possible, and in the lower limbs to secure such extension as will result in a bone of normal length.

After amputations, never wait to apply an artificial limb beyond the time when the stump is well healed and the patient is strong

again. Disuse of the stump for too long a time makes it less able to stand the artificial limb. The only exception to this rule is where the operation was done for malignant disease, where early pressure and concussion might favor a return.

In injuries of the skull requiring operation, it is well to remember that the prognosis depends a good deal upon the region involved. Thus in a series of over 800 cases it was found that the mortality was one to sixty when the anterior brain was affected, whereas it was one to thirteen in injuries of the central and posterior regions, and one to four and a half in those situated at the base.

TYPHO-MALARIAL FEVER.—Grandy (*N. Y. Med. Jour.*, Sept. 30, '99) has made a careful study of the combination of typhoid and malarial fevers, and finds that typhoid fever may occur in an individual who has already dormant malarial organisms in his blood; that these organisms produce symptoms either at onset or during the convalescence of the typhoid fever; that they remain quiescent during the course of that disease (only one case to the contrary); that the early malarial symptoms may be checked by quinin without influencing the course of the typhoid fever; and consequently that the two diseases should no more be classed as a "mixed infection" than typhoid fever and measles occurring in the same person.

Before concluding, it would perhaps be well to look more narrowly at the term typho-malarial fever, and see what conditions would justify its use. There seem to be only three such conditions possible:

1. *A Distinct Disease.* That is, one caused by an organism distinct from the malarial plasmodium and the typhoid bacillus. No one now maintains that such a disease exists.

2. *A Mixed Infection.* Here the two diseases must be so intimately blended that they in reality form a new disease. No evidence of such a blending has yet been found, though thousands of cases have been examined.

3. *As to Coincident Diseases.* Here typhoid and malarial fevers simply coexist as two independent diseases. We have seen that this really does occur in some instances. But is this connection sufficient to justify a new name? The malarial symptoms under such circumstances occur either at the beginning or during the convalescence of the typhoid fever, but remain quiescent during

the course of the latter disease. They are usually easily controlled by quinin, while the typhoid fever continues its usual course. In this connection, as Dock says, "there is no more reason to speak of a mixed infection than there would be in a simple case of pneumonia to speak of a mixed infection because streptococci were found in the mouth."

FACTS AND FALLACIES IN URINALYSIS.—Schaefer (*Medical Record*, Sept. 16, '99) deprecates the use of the heat test for albumin, on account of the many sources of error in this test. A positive reaction may result in the absence of albumin, and vice versa. The errors may be avoided by not boiling the urine, and resorting to the nitric acid, picric acid, and ferro-cyanid of potassium and acetic acid tests, all of which, says the author, are simple and reliable. Turbid urine should, of course, be filtered.

The phosphates may result from the burning of organic compounds, nuclein, protargon and lecithin within the organism; there is also a relation between the destruction of leukocytes and the excretion of phosphoric acid. Pathologically there is no relation between the amount of phosphoric acid excreted and the pathologic changes in the tissues, since the greater part comes from the food.

The uric acid theory next comes in for criticism. Precipitation after standing is still believed by some as an evidence of excess, although the quantity may be actually diminished; high grade of acidity, poverty in mineral salts, low percentage of pigmentation, and long standing, are all causes of the deposition of uric acid. On account of greater solubility in warm urine, deposits occur more frequently in winter. The excretion of uric acid varies within very wide limits, both in health and in disease. Von Noorden holds the opinion that the gouty process can be traced back to a specific local inflammation of the respective tissues; these changes, including necrosis, tend to cause a precipitation of various salts, including urates. In leukemia, uric acid is greatly increased, yet no deposits result. Oxalate of lime is another rich field for the faking urinalyst. This is a normal constituent, and changes with the character of the food.

The crosses encountered with Fehling's solution are next considered, but instead of recommending another test, the author counsels the use of the *tactus eruditus*.

As to casts, there are true, pseudo-casts, and cylindroids. Only the true casts have great diagnostic value. The epithelia of the entire urinary tract may be present in healthy urine. There is no way to distinguish between those from the bladder, ureters and pelves. Leukocytes are only significant if present in increased numbers; their source cannot be ascertained from the urine, says this iconoclast, nor does the diazo reaction of Ehrlich have any diagnostic significance whatever; it may even be present in the urine of healthy subjects.

CASES OF TABES IN JOHNS HOPKINS HOSPITAL AND DISPENSARY FROM MAY TO DECEMBER, 1898.—H. M. Thomas (*Bulletin of Johns Hopkins Hospital*, April, '99) gives the following analysis:

Of 111 cases 106 were in whites, 5 in negroes; 70 patients were natives of this country, 17 were German, 6 were Irish. The negroes represented 10 per cent. of the dispensary cases, but in the cases of tabes their percentage was only 4.5. This difference is of interest when the question of the relation of syphilis to tabes, admitted by the majority of authors, is considered. Syphilis is very common in the negro— $5\frac{1}{2}$ times as frequent in men of the black race, as in men of the white. Notwithstanding this, tabes is rare in the former. Of the 111 patients, 14 were women. Five of these were of the higher social strata. The time of onset of the tabes occurred most frequently between the ages of 30 and 50; the youngest case was 25, the oldest 66. The duration at the time of examination in 104 cases was as follows: 1 year or less, 18 cases; between 1 and 3 years, 34; between 3 and 5 years, 17; between 5 and 10 years, 24; between 10 and 20, 10; 30 years, 1 case. Regarding etiology, Thomas, who is a believer in the syphilitic origin of tabes, found certain syphilis in 42.1 per cent.; possible or probable syphilis in 63.1 per cent. On this point he enunciates the following conclusions: (1) in a large proportion of cases of tabes, a history of syphilis can be obtained; (2) in a not inconsiderable number of cases there is no history of a venereal sore or other syphilitic manifestations; (3) in negroes, tabes is relatively uncommon, whereas syphilis is much more common in them than in the white population; (4) the partial immunity of women is greater than can be satisfactorily accounted for by the relative infrequency of syphilis among them.

The following occurred as initial symptoms: Pain, 57 times; ataxia, 24 times; numbness, extremities, 6 times; eye symptoms, 20 times; nausea and vomiting gastric crises, 4 times; paralysis of bladder, 5 times; loss of sexual power, 1 time; paralytic attacks, 2 times; mental symptoms, 1 time; neurasthenia, 1 time.

Among the subjective sensations, pain was prominent; girdle pain was present in 27; gastric crises in 9; laryngeal in 2; rectal (and penile) in 1; optic atrophy was found in 11; eye muscle paralysis in 33; Argyll-Robertson pupils in 70; in 8, slight reaction to light was present, and in 21 the pupillary reflexes were normal. Ataxia was present in 91, absent in 8; the knee jerks were normal in 4 cases. Objective sensory disturbances were present in 78 of 90 cases; typical arthropathies occurred in 5, and perforating ulcer in 5. Mental symptoms were present in 7; in 1, epilepsy had lasted from the fourteenth year up to the time of the onset of the tabes, at 44.—*Phila. Med. Journal*.

THE EFFECT OF ENTRANCE OF AIR INTO THE VEINS.—The *Ther. Gazette* reviews an article by Sternberg in the *Centralb. für Chirurgie*, No. 11, '99, in which he details two cases where air entered the veins and gained access to the heart during operation for removal of tumors about the clavicle.

In the first instance a woman aged 61 years, with normal lungs and heart, was operated upon for malignant adenoma of the right lobe of the thyroid, when a short, loud wheezing sound was heard, and a very loud gurgle accompanied each heart sound; the respirations became superficial and the pulse slow, but there were no further bad symptoms and the patient soon recovered. The cardiac gurgling sound ceased in a few minutes. The cause of the entrance of the air was the tearing of the external jugular vein. Death occurred from pneumonia on the 15th day.

The other was a similar case, in which a rhythmic, gentle, sucking sound was heard; symptoms of syncope came on, the heart beat loudly against the chest, and a loud gurgling sound was heard, while the normal sounds were absent. This sound was so loud that it could be heard by bystanders. Artificial respiration, faradization, and massage of the heart were tried and complete recovery ultimately resulted. The writer of the editorial has in a number of instances seen air accidentally introduced into the veins of human

beings with no evil effects ensuing. The presence of bubbles in the cardiac cavities and elsewhere post mortem has in many instances been proven to be due to the development of gas produced by the bacillus aerogenes capsulatus.

SOME IMPORTANT POINTS REGARDING PERFECTION OF ASEPSIS.—
Carl Beck (*Medical Record*, Oct. 7, '99) announces the following maxims:

1. The superficial surface of the skin of the patient and of the surgeon's hands is sterilized after the principles already set forth. The atmosphere being innocuous, all inorganic material being made aseptic by boiling, the skin surface being asepticized, and the skin glands which contain bacteria being *hors du combat*, it becomes evident that the only possible source of infection remaining would be the rough manipulations on the part of the surgeon or his assistants.

2. Aseptic gloves are worn by the operating surgeon at least during the skin incision. The assistant who passes the instruments and the one who attends to the wound itself wear gloves throughout the whole operation.

3. After incision the wound margins of the skin are covered with sterile napkins, which are fastened to the wound surface underneath the skin margins with miniature forceps, so that the skin wound is not touched at all during the subsequent manipulations.

4. The knife used for the skin incision must not be used for further incisions. The operation should be performed as rapidly as possible.

5. For uniting the wound margins of the skin the subcutaneous method should be preferred.

6. Forcible manipulations, especially blunt operating, should be avoided.

7. The surgeon and assistants wear sterilized suits or gowns. Their heads must be covered with sterilized caps, because in bending over the field of operation it often happens that the heads of the surgeon and his assistant come in contact, whereby infectious material might be introduced into the wound.

8. Long beards are entirely unsurgical.

9. If a surgeon should suffer from rhinitis, tonsillitis, etc., he should use the most minute local precautions, or would better omit operating until recovery. It is self-understood that a surgeon should

regard it as a crime to operate so long as he suffers even from a slight furuncle on his hand. With the expenditure of a little more time and trouble the same principles can be carried through the private practice also.

GALL STONES.—Ransohoff (*Jour. Amer. Med. Asso.*, Sept. 16, '99) submits the following propositions:

1. The gall stones found in a gall bladder are generally formed together, that is about one and the same time. Their removal will not be followed by recurrence unless a reinfection of the biliary ways occurs.

2. Cholecystotomy with drainage should be regarded as the normal operation.

3. Save in exceptional cases, the operation should be done at one time.

4. Ideal cholecystotomy or cholecystendesis is not to be recommended.

5. Cholecystectomy is rarely indicated in acute processes. It is more dangerous than cholecystotomy. Since most stones are formed in the gall bladder, cholecystectomy is the more radical operation. It should be reserved for chronic cases in which a restitution of the gall bladder to the normal cannot be expected.

6. Cysticotomy is a safe supplement to incision of the gall bladder for stones of the cystic duct.

7. Choledochotomy with suture and drainage should be considered the routine procedure in common-duct stones. Incision of the duct through the duodenum or from an incision in the loin (Tuffier) will rarely be needed.

8. Cholecystenterostomy has a limited but distinct field of application, i. e., obstruction jaundice from malignant disease or impermeable cicatricial common-duct stenosis.

TREATMENT OF TAPEWORM BY MEANS OF MORPHIN INJECTED INTO THE PROTRUDING PART OF THE PARASITE.—Kime (*Medicine*, Sept., '99) prescribes the following treatment: The patient does not fast or have any preparatory treatment whatever, except that he eats no breakfast on the morning of the day of treatment. At about 9 A.M. he is given a dose of infusion of pomegranate, or what is far better, of tannate of pelletierin, with one or two drops of croton

oil. The patient should be kept at rest, generally under the personal observation of the physician, for two or three hours, when movements of the bowels will most likely occur and the whole or part of the worm be passed. If only a part protrudes, then a string is tied moderately tight around the worm about three inches below the patient, and half a grain of morphin is injected above the string, directly into the substance of the worm; the part below the ligature is then severed and the stump passed up through the sphincters and left there about ten minutes. A large injection of water is then given, when the worm with its head will pass, apparently dead.

A PRELIMINARY NOTE ON THE USE OF ASPARAGUS AS A DIURETIC. Hare (*Ther. Gaz.*, Sept., '99) has experimented with a fluid extract made for him by Parke, Davis & Co., of the tops of asparagus. The first patient had dropsy from cirrhosis of the liver, with gastric disorder and nausea. The urine varied during fifteen days, from 35 to 48 ozs. On the sixteenth day a drachm of the fluid extract three times a day caused a rise to 62 ozs., and in five days the quantity had reached 70 ozs. The drug was continued for twelve days more with a daily secretion of 55 to 65 ozs. and then stopped for nine days and then continued for one month, after which time the dropsical symptoms had disappeared.

In another case, of disordered digestion and marked edema of the legs resulting from a double mitral lesion, and in which only 20 to 25 ozs. was passed in 24 hours, digitalis and bitartrate of potassium failed to produce any diuretic influence. The bitartrate was then replaced with infusion of juniper berries and acetate of potassium, a pint a day without any effect. Fluid extract of asparagus in three days raised the quantity to 40 ozs., and it remained at 35 to 40 ozs. as long as the drug was continued. In a case of atheroma with aortitis and probably fatty heart, no marked effect was produced by the asparagus.

THE USE OF PAROTID GLAND EXTRACT IN THE TREATMENT OF OVARIAN DISEASE.—Dr. E. Pierre Mallett (*N. Y. Med. Jour.*, August 26, '99) was led to try this extract from the close physiologic relationship between the ovary and parotid gland, and reports twenty cases in which it was used. In five the chief symptoms were severe dys-

menorrhœa and pains in ovarian regions and back, enlarged, tender and prolapsed ovaries. Combined local treatment. Under local treatment did not improve near as rapidly, if at all, as when combined with the extract. He summarizes, though not attempting physiologic explanation :

1. Relieves pains of dysmenorrhœa in all cases without regard to cause, with more certainty than other uterine sedatives.

2. Relieves the dull, aching pains referred to back and ovarian regions, usually designated by such terms as ovarian neuralgia, etc.

3. Menstruation, when deranged, seems to become more regular, less in amount, and shorter in duration.

4. Pelvic exudate seems to become absorbed quicker under massage during its administration.

5. Seems to improve the general health and spirits and relieves the persistent dull headaches of this period.

6. Contraindicated in the cases of artificial climacteric. Causes the flashes of heat and cold to become more frequent and severe.

THE LOCAL TREATMENT OF PUERPERAL INFECTION.—Dr. Arnold Lea (*Med. Chronicle*, Aug., '99), in a paper on this subject in which he gives an analysis of forty-eight cases, arrives at the following conclusions :

1. A rise of temperature over 101.4°F. during the puerperium, not obviously accountable for by other causes, should lead to a thorough examination of the genital passages.

2. If no sufficient explanation is found in the condition of the perineum or vagina, a uterine douche should be at once given, with due precautions.

3. If within twenty-four hours the temperature has fallen definitely, no further exploration is required, but the douche may be repeated if the temperature again rises.

4. If at the end of twenty-four hours the temperature is higher, and the pulse rate has increased, the cavity of the uterus should be explored with the sterilized finger.

5. If the initial rise of temperature is great (103°F. or over), with or without a rigor, the uterus should be explored at once, without waiting twenty-four hours to observe the effects of a douche. This is more especially indicated if the uterus is bulky, showing delayed involution, since this points to putrefaction of retained products, or to septic endometritis.

6. If clots or placenta are discovered, they should be removed by the finger or curette, a douche given, and a gauze drain inserted for twenty-four hours.

7. In the great majority of cases it is wiser to thoroughly curette the uterus, with the object of removing the whole of the decidua and retained products.

8. There is no evidence that curettage, if done with every precaution, favors the spread of infection. In a large proportion of cases the infection is rapidly checked.

9. In very virulent infection *early* curetting, with the object of sterilizing the uterine cavity, affords the best chance of a successful result.

10. If curettage entirely fails, it must be repeated or not, according to the local condition present. The prognosis, however, in the absence of a definite localization of the infective process, is bad.

11. In some cases, if curettage fails, and there is no evidence of general peritonitis or of infection of the blood stream, vaginal hysterectomy, if performed in good time, may be successful.

12. Antistreptococcic serum should be given early and freely in cases of *proved* streptococcic infection. It is of little use in the advanced stages of the disease.—*N. Y. Med. Jour.*, Oct. 14, 1899.

CLOSURE OF THE ABDOMINAL INCISION AFTER LAPAROTOMY.—A. T. McCormack (*Amer. Prac. & News*, vol. 28, no. 39) gives a practical plan for those cases which do not require drainage:

1. The retracted edges of the peritoneum are brought into immediate apposition by a continuous suture of fine catgut.

2. If the muscles have been incised they require no sutures, but if their fibers have been separated, as advised by McBurney, the edges should be brought together by numerous buried interrupted sutures of chromicized catgut or kangaroo tendon.

3. The deep fascia should be brought into very close apposition by interrupted sutures of chromicized catgut or kangaroo tendon, placed four to the inch.

4. If not pressed for time, a running suture of fine catgut should bring the edges of the subcutaneous fat together so that clots can not form under the skin.

5. And finally, the edges of the wound should be brought together by a subcuticular, subcutaneous stitch of fine catgut, which coapts the skin exactly and leaves a very slight scar.

DRAINAGE AFTER SUPRAPUBIC CYSTOTOMY.—(Editorial *Med. Record*, October 7, '99.) The most generally advised methods of securing bladder drainage are through the suprapubic wound by means of some sort of a tube or even a siphon. The disadvantage of drainage by this route is that fluids persist in declining to run up hill, and in order to escape in this way there must be some *vis a tergo*. The dressings are troublesome, and our success is only partial in getting rid of the discharges, some of which remain in a bladder already the seat of inflammation varying in severity from the least to the greatest. The effect of this retention can only be to maintain and increase the amount of inflammation, which depends as a rule upon qualities in the urine as it enters the bladder or acquired by it while in that organ.

If we add to these sources of irritation the effect of the operative traumatism and the possible invasion of bacteria from the air and other surroundings, it is easy to understand what may be important factors in delaying the healing of a suprapubic wound, especially toward the end of its course when conditions become so favorable for the formation of a fistula. This is in sharp contrast with the behavior of the perineal opening into the bladder, made for the purpose of drainage, after a deep urethrotomy for instance, when the intravesical conditions may be fully as bad as in disease requiring the suprapubic operation. It is unfortunately too common an occurrence, after the latter operation, to have the wound apparently go on to solid healing, and then break open and establish a fistula into the bladder. The reason for this occurrence is certainly not to be found in the skin, fascia, and muscle, but is to be sought in the wall of the bladder and in the cavity of the organ. The mucous membrane of the anterior vesical wall is loosely attached, and its relations are more or less disturbed when the bladder is opened in this region, so that there is a chance for infection and inflammation between this membrane and the rest of the wall. After the operation is complete, conditions are not favorable for accurate suturing even if such were desirable, and when suprapubic drainage is established the edges of the wound are continually covered with urine and pus which act as irritants and interfere with normal healing. The explanation of fistula-formation after apparent solid healing can be found in the mucous membrane at the point where the wound should finally heal. Instead of a prompt re-for-

mation of mucous membrane along the line of incision with very little cicatricial tissue, there is more or less irregularity in the process, and the formation of granulation tissue which is destined ordinarily to become dense cicatricial tissue, but which under these circumstances is perverted from this course. The result of this is the formation of one or more points of unhealthy and sluggish granulation in the interior of the bladder, along the line of the incision, any one of which may give entrance to bacteria practically always present in the urine of these patients. It is then a short step to abscess and fistula and perhaps extensive infection in the cellular tissue of the abdominal wall. The addition of a perineal drain makes the prospect of getting solid and prompt union in the suprapubic wound much greater than if up-hill drainage is depended upon, and the introduction of such a drain is an easy and rapidly accomplished matter. This form of drainage is particularly satisfactory when the bladder is the seat of chronic inflammation, to ameliorate which it is desirable to give the organ complete rest. With the perineal tube carefully kept open by suitable irrigation, the course toward healing in the suprapubic wound is much more satisfactory, and on this account this form of drainage should be recommended as a routine procedure in cases of suprapubic cystotomy, to be discarded only under exceptional circumstances. The annoyance of a persistent suprapubic fistula can hardly be overestimated, and furthermore, its presence involves a certain amount of danger. We are therefore justified in using perineal drainage simply because it increases the chance of permanent recovery, not because it is demanded by any specific intravesical condition. This plan is already carried out by some surgeons in their intravesical work, and its adoption will probably become general, as its desirability becomes recognized.

THE USE OF CHLOROFORM IN LABOR.—Walker Bourne Gossett (*Am. Prac. & News*, vol. 28, no. 39) thinks that chloroform should be used in all cases of obstetrics, as it has been used many thousands of times; yet not a half-dozen cases of death are on record where it was administered by a competent man. He thinks the following conditions almost completely exempt the patient from danger: the horizontal position, the intermitting in its use, the anesthesia not being profound, the influence of uterine contractions

by which alternate relaxing and contracting the action of the heart and lungs is reinforced. He has not noticed the force of uterine and abdominal contractions diminished by its use, nor does it predispose to post partum hemorrhage.

Dr. J. C. Seere, in the *Amer. System of Obstetrics*, says no proof can be furnished that the parturient woman enjoys a special immunity from the danger of anesthetics, although facts seem to indicate that such exists. Dr. Gossett thinks that if the chloroform is guarded with strychnin and nitro-glycerin the danger and discomfort will be much less than if ether were administered.

GONORRHEAL SALPINGITIS.—J. W. Taylor, F.R.C.S. (*British Gynec. Journal*, August, '99), in a paper recently read before the British Gynecological Society, submitted the following propositions which he was "disposed to maintain, and on which he invited the criticisms of his colleagues":

1. That a large number of women who are suffering from tubal disease have been at some time or other exposed to the infection of syphilis as well as of gonorrhea. That these undoubtedly show marked improvement after a prolonged course of mercury and iodides, and in the course of this treatment, unless acute pyosalpinx intervenes (in which medicine is useless), it is the rule rather than the exception for all gross physical signs of disease to slowly and permanently disappear.

2. That many cases in which there is no history of syphilis, including cases in which there is an unmistakable history of gonorrhea pure and simple as the sole cause and starting point of tubal disease; do similarly improve and get permanently well under the same course of treatment, provided always that the disease stops short of acute pyosalpinx and its dangerous complications.

3. That acute pyosalpinx is peculiarly liable to occur in the first place on the left side of the body, and its special severity is probably due to secondary infection from the rectum. That cases of pyosalpinx, whenever possible, should be treated by free incision of the posterior vaginal fornix, by thorough exploration and emptying of all pus cavities from the pouch of Douglas, and by iodoform gauze drainage. That this is far preferable to the older operation of removal of the appendages, which is not only much more dangerous, but is peculiarly liable to be followed by fecal fistulæ, an operation sequel sometimes worse than death itself.

4. That such cases of mixed infection and acute suppuration treated by operative evacuation of the pus, with or without removal of the appendages, do sometimes not only recover but remain permanently well without further treatment, the acuteness of the inflammation appearing to terminate the process of infection. In other cases recovery is not so complete or relapses are met with, and these cases should be followed up by a course of specific treatment, the beneficial result of this being often immediately manifest when the wound tissues are unhealthy and the healing is delayed.

5. That occlusion of the tubes and peritubal adhesions consequent on gonorrheal adhesions have no direct specific causation, and must be regarded rather as secondary mechanical results of the local peritonitis which has been caused by salpingitis. Their absorption and disappearance will not therefore be necessarily secured by the cure of the gonorrhea, and sterility may persist although gonorrhea is entirely eradicated from the system.

6. That in gonorrhea of the pelvis there will probably remain a residuum of intractable cases, particularly cases of complication with other diseases, such as fibroids of the uterus. That in these cases operative removal of the organs affected will still be required, and that vaginal hysterectomy whenever possible, with or without extirpation of the uterine appendages, is not only the most rational operation in theory, but is productive of the best final results.—*N. Y. Med. Jour.*, Oct. 14, '99.

BETA-EUCAIN AS AN ANESTHETIC IN EYE, NOSE AND THROAT WORK. Poole, (*Med. News*, Oct. 21, 1899,) concludes as follows:

1. Eucain is decidedly less toxic than cocain, therefore superior to it.

2. Its aqueous solutions keep well and can be sterilized by boiling without destroying the activity of the drug.

3. It produces anesthesia equally well and sometimes better than cocain.

4. It is superior to cocain in that it does not cause heart depression or other unpleasant effects.

5. It does not cause mydriasis or disturbances of accommodation, which is an advantage in some cases.

6. It is less dangerous to the cornea than cocain inasmuch as it does not cause desquamation of the superficial epithelium.

NOTE ON THE SIMILARITY BETWEEN *BACILLUS ICTEROIDES* AND *BACILLUS CHOLERÆ SUI* (*Appendix A, Report of the U. S. Yellow Fever Commission*).

Drs. Geddings and Wasdin, seeing in the *Medical News* the preliminary report of Reed and Carroll showing the typic lesions of hog cholera in pigs inoculated with *bacillus icteroides*, append this report to their official communication.

They criticise the above report, inasmuch as only one of the cases is mentioned in Reed and Carroll's report, the second being infected from the first animal itself. The experiment of infecting specifically susceptible animals in infectible territory with *bacillus cholerae suis*, by feeding with cultures of *bacillus icteroides*, must be regarded as questionable evidence, especially since two domestic pigs infected with the most virulent cultures of *bacillus icteroides* in their hands gave contrary results; these experiments were conducted at the Delaware Breakwater Quarantine, where accidental infection with hog cholera could be excluded. It may be that Drs. Reed and Carroll had a contaminated culture (which these investigators deny) or the introduction of the hog cholera was accidental.

Geddings and Wasdin also express surprise "that these observers, after stating that the organism of Sanarelli possesses a most marked specificity, equaling that of *bacillus cholerae suis*, of which they consider it a variety, advance the proposition, that it, when found in cases of yellow fever, is one of the secondary organisms, such as the colon and *poteus*, which invade the body in the 'last hours of life.'"

"We cannot assent to this proposition. The work of Sternberg, who says, 'In the series of cases studied by me, secondary infections were extremely rare,' and the work of Sanarelli and our own is opposed to the *barest possibility* that the *bacillus cholerae suis* could have been present in the intestinal contents and not have been discovered."

They emphasize that they did not underestimate the chance that gave Sanarelli two cases of blood infection, from whom pure cultures could be easily made, and that advances in technic had been made since Sternberg worked in that field.

To more fully fortify their position, they made the Pfeiffer test with two guinea pigs and found no specific effect upon the animal inoculated with hog cholera, when injected with yellow fever serum,

while the bacilli in the other animal were to a great extent fragmental and motionless. Both animals died, showing no anti-infectious properties of the serum anti-amaryll, but a distinct retardation. The necropsies showed a marked difference in the findings. They conclude:

"1. That the domestic pig is incapable of infection by the bacillus icteroides, when introduced through the intestinal or digestive tract.

"2. That the *B. icteroides* when fed to pigs will *not* produce any of the symptoms or intestinal lesions characteristic of hog cholera, as claimed by Reed and Carroll."

SUPRARENAL EXTRACT IN THE TREATMENT OF ADDISON'S DISEASE. Dr. R. Alex. Bate (*Am. Prac. & News*, vol. 28, no. 39) reports the alleviation of Addison's disease by daily administration of extract of the suprarenal glands of sheep. One-half grain was given three times a day with such marked improvement that for more than a year the patient has been able to earn a living at the usual occupation. The asthenia, nausea, dizziness, faintness and pigmentation have almost entirely disappeared. On two occasions, when the extract could not be obtained for ten days, attacks of fainting with cold, clammy sweats, occurred. It is evident from this that should medication be discontinued the symptoms would return, since we have simply supplied artificially that which is normally secreted.

DETECTION OF THE TRICHINA SPIRALIS.—L. Napoleon, Boston. (*Microscopic Bulletin*, August, 1899.)

In man the most favorable point of election is the outer head of the gastrocnemius, near the tendinous insertion, where it can be found on the twenty-first day. The minute piece of muscle can be easily obtained under cocain anesthesia and teased out in glycerin and water; it can then be seen under a two-thirds inch objective, with low illumination. When a permanent mount is desired a drop of Farrant's solution is placed on the specimen and a coverglass is moistened by the breath and allowed to fall gently on the medium. The slide should be put in a cool place for twenty-four hours, and can then be ringed by any cement. Specimens thus mounted can be preserved for three years.

BOOKS AND PAMPHLETS RECEIVED.

Progressive Medicine. Volume III. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, handsomely bound in cloth, 440 pages, 11 illustrations. Lea Brothers & Co., Philadelphia and New York.

The International Textbook of Surgery. By American and British Authors. Edited by J. Collins Warren, M.D., LL.D., Professor of Surgery in Harvard Medical School; Surgeon to the Massachusetts General Hospital; and A. Pearce Gould, M.S., F.R.C.S., Surgeon to Middlesex Hospital; Lecturer on Practical Surgery and Teacher of Operative Surgery, Middlesex Hospital Medical School; Member of the Court of Examiners of the Royal College of Surgeons, England. Volume I, General and Operative Surgery. With 458 illustrations in the text, and 9 full-page plates in colors. Philadelphia: W. B. Saunders. 1899.

Report of Formaldehyd Disinfection in a Vacuum Chamber. By P. A. Surg. E. K. Sprague, U. S. M. H. S. (Acting Director Hygienic Laboratory) Treasury Department, U. S. Marine Hospital Service. Washington: Government Printing Office. 1899.

The Cause of Yellow Fever. Report of Commission of Medical Officers Detailed by Authority of the President to Investigate. Treasury Department, U. S. Marine Hospital Service. Washington: Government Printing Office. 1899.

Involvement of the Eye and Ear in Cerebro-Spinal Meningitis. By Wm. Cheatham, M.D., of Louisville, Ky. (Reprinted from *Philadelphia Medical Journal*, July 25, 1899.)

Excision of the Right Superior Cervical Ganglion of the Sympathetic for Glaucoma, with Report of Case and Review of Literature of the Surgery of the Cervical Ganglia. By James Moores Ball, M.D., and Willard Bartlett, A.M., M.D., St. Louis. (Reprinted from the *New York Medical Journal*, July 1, 1899.)

Resection of the Cervical Sympathetic in Glaucoma. By Professor Thomas Jonnesco, of Bucharest, Roumania. Translated from the *Wiener Klinische Wochenschrift* of May 4, 1899, by James Moores Ball, M.D. (Reprinted from *Interstate Medical Journal*, July, 1899.)

The Failure of Antitoxin in the Treatment of Diphtheria. By J. Edward Herman, M.D., Brooklyn, N. Y. (Reprinted from *Medical Record*, May 27, 1899.)

Hydrochloric Acid—Simple Method of Administering. By Chas. D. Aaron, M.D., Detroit, Mich. (Reprinted from *Journal American Medical Association*, July 24, 1899.)

The Diagnostic Value of Abdominal Palpation in Diseases of the Intestines. By Chas. D. Aaron, M.D., Detroit, Mich. (Reprinted from *Mathews' Quarterly Journal*, April, 1897.)

Carcinoma of the Duodenum. By Charles D. Aaron, M.D., of Detroit, Mich. (Reprinted from *Philadelphia Medical Journal*, 1899).

Albuminuria and Its Relation to Diseases of the Eye. By Alex. W. Stirling, M.D., Atlanta, Ga. (Reprinted from *Ophthalmic Record*, September, 1899.)

Sarcoma of the Orbit. By Alex. W. Stirling, M.D., Atlanta, Ga. (Reprinted from *Ophthalmic Record*, July, 1898.)

NEWS AND NOTES.

THE New Orleans Polyclinic will open on November 20, 1899.

DR. B. N. WARD, of Helena, Ark., has moved to Little Rock.

DR. R. S. STANLEY has been confined to bed with continued fever.

DR. FRANK A. JONES has removed his residence to 146 Vance street.

DR. F. D. SMYTHE left for Chicago October 14 to spend two or three weeks.

DR. T. J. CROFFORD has been elected Vice-President of the American Obstetrical and Gynecological Association.

DR. J. H. REILLY and Dr. E. C. Ellett have completed and moved into their new residences on Bellevue avenue.

DR. B. F. TURNER has been absent from the city recuperating since September 20 and expects to return November 1.

THE LANCET extends its sympathy to Dr. S. J. Cooper in the loss of his mother, who died in Tuscumbia, Ala., on October 15.

THE Tri-State Medical Society of Alabama, Georgia and Tennessee held its annual meeting in Chattanooga on Oct. 24, 25 and 26.

DRS. ELIZABETH KANE, Kennedy Jones, J. L. Minor, W. B. Rogers and R. B. Maury have returned from their summer vacations.

DR. WM. T. BRAUN, formerly House Surgeon at St. Joseph's Hospital, has returned from a post-graduate course in New York and opened an office.

DR. SMITH BUFORD, of Raleigh, Tenn., died on October 20th. Dr. Buford was a member of the Tri-State Medical Society and a Confederate Veteran.

THE Memphis Hospital Medical College will open its annual session on November 1st. The Faculty this year contains two new Professors and an augmented corps of Demonstrators and Instructors.

ON November 1st Drs. Hugh Boyd and H. S. Wolff will complete their terms as Resident Physicians at the City Hospital, their places being taken by Drs. Fountain, of Texas, and Minor, of Mississippi.

Two suits for \$20,000 each have been filed against the Van Vleet-Mansfield Drug Co. of this city, alleging that the deaths of two persons were caused by their taking internally some wood alcohol sold by the defendants under the label of "Cologne Spirits."

DR. JNO. G. CLARK, formerly Chief Resident Gynecologist at Johns Hopkins Hospital, has been elected Professor of Gynecology in the University of Pennsylvania, to succeed Dr. Chas. B. Penrose, resigned. Dr. Clark graduated from the University in 1891, and was a student contemporary with three of the LANCET's editors. His many valuable contributions to gynecologic literature have made him well known, and his appointment is a merited reward for hard and conscientious work.

ON November 1st services in the staffs of St. Joseph's and the City Hospital will be changed, the following going on duty:

CITY HOSPITAL.

Physicians—Drs. Henning and Reilly.

Surgeons—Drs. Maury and Rogers.

Gynecologist—Dr. Rice.

Obstetrician—Dr. Erskine.

Oculist and Aurist—Dr. Sinclair.

The services of Pathologist, Laryngologist and Neurologist do not change.

ST. JOSEPH'S.

Physicians—Drs. Rice and Turner.

Surgeon—Dr. Rogers.

Oculist and Aurist—Dr. Minor.

Gynecologist—Dr. Taylor.

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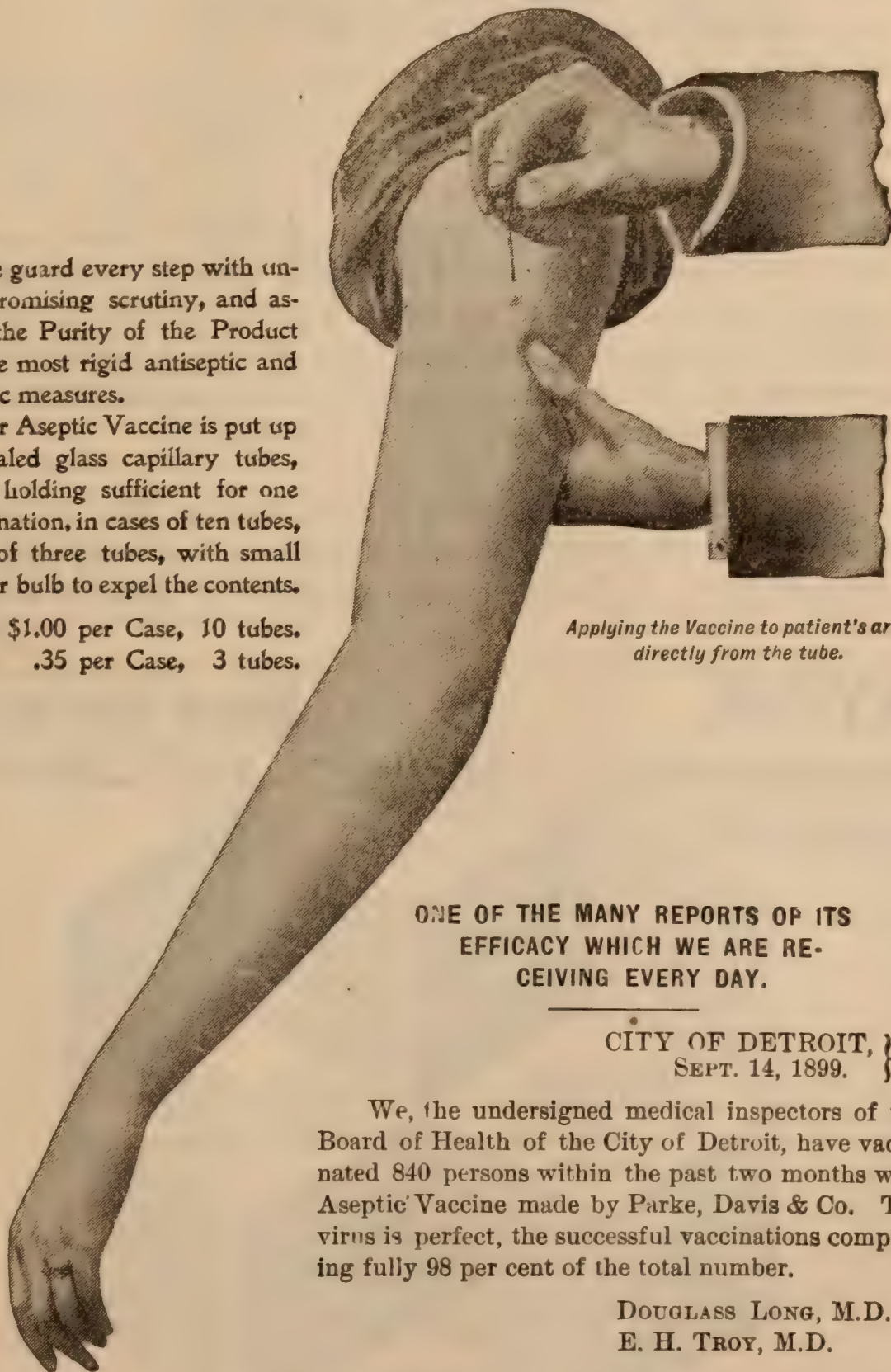
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We, the undersigned medical inspectors of the Board of Health of the City of Detroit, have vaccinated 840 persons within the past two months with Aseptic Vaccine made by Parke, Davis & Co. The virus is perfect, the successful vaccinations comprising fully 98 per cent of the total number.

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Kansas City, Baltimore, New
Orleans, and Montreal, Que.

CLINICAL NOTES.

TREATMENT OF MALARIA.—Dr. A. G. Servoss (*Med. Council*, Oct. 1899,) states that we have two classes of patients who cannot take quinin: First, those who do not like the inconvenience which it causes, such as headache, dizziness and ringing in the ears. Second, those to whom it is rank poison, and to whom under no circumstances should it be given. He refers to a case in which one grain of quinin, given without the patient's knowledge, will bring on complete collapse, with cyanosis, unconsciousness and symptoms of heart failure. Another in which a small dose will bring on all the symptoms of scarlet fever in its malignant form. He states that he could name a large number of cases of erythema and urticaria due to the same cause. In all these cases in which quinin is not well tolerated he is in the habit of giving salicin in ten grain doses, three times a day, and also three grains of quinalgen, three times daily. The secretions should be kept active by the use of vegetable or mineral cholagogues and diuretics.

AN IMPORTANT OBSERVATION.—Prof. Burney Yeo, of London, states in his latest work on clinical therapeutics that many of the common forms of diarrhea are accompanied by excessive acidity of

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Protonuclein

by increasing the number of Leucocytes, destroys toxic germs, increases the inherent resistance to disease, quickens glandular activity, arouses the nutritive forces, gives tone to the system, and stimulates cell-life throughout the organism.

Peptenzyme

is the only perfect digestive. It digests every variety of food. In physiological activity it presents the active and mother ferments of the entire group of digestive organs. It aids digestion by furnishing an additional supply of protoplasmic material out of which active ferments are elaborated, and perfects the process by increasing cellular activity.

Samples and literature on request.

Reed & Carnrick, - - New York.

the intestinal contents, and that they may be promptly cured by antacid remedies without the use of astringents. These forms of diarrhea are associated with the growth and multiplication of micro-organisms which induce intestinal fermentation and consequent local irritation from decomposing food products. The therapeutic indications in these cases are clear, viz: check intestinal fermentation, neutralize acidity, and overcome the existing atonicity and catarrhal inflammation of the intestinal mucous membrane. Lauder Brunton speaks highly of the value of glycerin as an intestinal antiseptic. In combination with digestive tonic alteratives and antacids, as it is in Gray's Glycerine Tonic Compound, it fulfills all the existing indications and moreover promotes the digestion and assimilation of food so that the normal nutritive processes are speedily reestablished. It is of particular value in diarrhea occurring in people of impaired vitality, as it not only cures the intestinal disturbances, but it also restores tone to the enfeebled system. The Purdue Frederick Co., 15 Murray street, New York.

DR. WM. RITTENHOUSE, in the *Medical Standard*, states: "The fundamental idea underlying proprietaries is that some prescriptions can be better compounded on a large scale by the manufacturing pharmacist than on a small scale by the retail druggist."

When physicians hesitate to prescribe Tongaline because it is a proprietary medicine, they overlook the fact that this is a source of protection both to them and to their patients. For instance, all the salicylic acid used in Tongaline is made in the laboratory of the proprietors from the purest natural oil of wintergreen, and the most eminent medical authorities declare this salicylic acid is the only one which should be taken into the system. Scarcely any retail druggist has the wintergreen salicylic acid in stock, and those who do have it purchase it in such small quantities that its cost when dispensed by them renders its use almost prohibitive; hence the synthetic salicylic acid is furnished in prescriptions, and this acid is most unreliable, and its use is apt to be attended with very injurious results. It is a simple business proposition that a proprietor who has spent hundreds of thousands of dollars in advertising his preparation should exercise the greatest care in maintaining its character by the purchase, regardless of cost, of the very best ingredients which the markets of the world will afford, as also that he will use the most improved and expensive machinery and appliances in compounding his product. When a physician prescribes Tongaline in original packages, or takes care that the genuine article is dispensed, he can always rely upon "certain results from certain doses in a certain time."



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Crutches, Trusses, Surgical Dressings, and requisites for the sick.

BOWEL COMPLAINTS OF INFANTS, CHILDREN AND ADULTS.—The following prescription has been used for some time by a prominent Philadelphia physician, who states that he considers it almost a specific in summer complaints: Liquor bismuth, Glyco-Thymoline (Kress), of each two ounces, mix. Dose: a teaspoonful as often as may be required. Glyco-Thymoline (Kress) may be combined with bismuth, tr. opii, camph. tr. opii, mistura creta, syr. rhei. arom., etc.

Administered internally Glyco-Thymoline (Kress) acts as a carminative, antiseptic, alterative, stimulant, antacid, and meets many of the requirements of the physician during the summer months. Glyco-Thymoline (Kress), diluted one ounce to the quart of water, used as a sponge bath, stimulates the skin secretions. An enema of Glyco-Thymoline (Kress), one ounce to the pint, will be found most valuable.

THE NEW ORLEANS POLYCLINIC.—*Thirteenth Annual Session* opens November 20, 1899—closes May 10, 1900. Every inducement in clinical facilities for those attending. The specialties are fully taught. Further information, New Orleans Polyclinic, New Orleans, Louisiana.

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CHOLERA INFANTUM.—David Coleman, M.D., Tottenville, S. I., reports the following case: On July 1st last was called to attend a baby suffering from cholera infantum in advanced stage. I had little hope of saving the child; at once put it on teaspoonful doses of Glyco-Thymoline (Kress). It stopped the vomiting and corrected the bowels—a rapid recovery resulted. Sept. 17, 1898.

The Laboratory of the Board of Health.

Exchange and Front Streets, Memphis, Tenn.

To the Medical Profession:

The Board of Health makes the following examinations free for the city Physicians: Exudate and sputum for diphtheria and tubercle bacilli, typhoid and yellow fever blood reaction and malaria organisms, well and cistern water and milk.

For other work I will charge the following fees: Urinalysis, chemical and microscopical, \$2.00; including staining for tubercle bacilli, \$3.50. Quantitative for sugar, \$2.50. This covers the work necessary to make a conscientious diagnosis, and for *life insurance*. Pus for gonococci and other microorganisms, \$2.00. Feces for parasites, eggs, etc., \$5.00. Blood for typhoid and yellow fever reaction, for malaria organisms, diphtheria exudate and sputum for tubercle bacilli, \$2.00. Other examinations for poisons, etc., according to labor and material consumed.

FELIX PAQUIN, Ph. B.,

Chemist and Bacteriologist of the Board of Health.
Member of the Association of Official Agricultural Chemists.

THE MEMPHIS LANCET.

VOLUME III.

DECEMBER, 1899.

No. 6

ORIGINAL ARTICLES.

THE VALUE OF TREATMENT IN PNEUMONIA.*

BY S. W. PURIFOY, M.D.

LOWNDESBORO, ALA.

In the spring of '95 I tabulated for Dr. J. B. Marvin a resumé of the cases of pneumonia received into the Louisville City Hospital from October 1, '94, to June 1, '95. This number consisted of 120 cases, having occurred in the consecutive services of Drs. Hendon, Solomon, Lapsely, and myself, through whose courtesies I make this report. The average mortality in this series was 67 per cent.; the highest, 95 per cent., was in December; the lowest, 10 per cent., was in April.

The distinguished reader, Dr. Marvin, said, before the Louisville Academy of Medicine, that we would probably be in error if we considered the death rate in every series of cases of pneumonia to be only 20 per cent., the authorized teaching; that the actual mortality would vary between 5 and 90 per cent., depending on the natural circumstances under which the disease was thriving, and the environments in which the patients lived.

The complications and the variations of the clinical symptoms in our series were as is usually found in such a number of cases. On the post-mortem table, however, whether a single lobe of a lung,

* Read before Tri-State Medical Society of Alabama, Georgia and Tennessee, Oct. '99

an entire lung, or whether both lungs had been involved, one constant and unvarying circumstance was always found—gray hepatization was a common feature in all cases that died. Dr. Cashin, the pathologist to the hospital, observed the clinical manifestations of these patients during life, especially during the last days of life. He examined this condition of gray hepatization found at death, both macroscopically and microscopically, making at the same time bacteriologic investigations, as to the nature of microörganisms present, both in the tissue and in the exudate. He made, on the strength of his observations, the inference that the gray hepatization as found at autopsy and commonly described by authors as the lung tissue in a state of resolution, was very probably a condition of purulent infiltration or of purulent saturation. It was left for all of us to think how a lung so filled with pus and so infected with pus-producing organisms could be in a process of resolution; or, in fact, if a lung became diseased in this manner could it be possible for it to resume its healthy state; or, again, is it not true that a healthy lung once involved in a pneumonic process had escaped the stage of hepatization altogether? These were wild conjectures which we could neither establish nor disprove. Notwithstanding, it served the purpose to impress us with an idea that a healthy, robust man did not succumb to a purely pneumonic process, but died from purulent septicemia or pyemia as a main or as a contributing cause.

These statistics do not give an accurate detail of the true mortality or of the virulence of the infection, by reason of the facts under which they were formulated. Those of us who have served for any length of time as a resident in an institution of charity know that the statistics therein made always show a higher mortality than in private work, which makes them faulty and subject to strong modifications. This is due to two facts: (1) many who become sick of a disease recover in their homes with little or no treatment, whereas many who apply for treatment in the institution are already in a moribund condition. So that the records of the hospital have been deprived of that number recovering in their homes without treatment, which number, by fact, belongs to the same series as that number received into the hospital; (2) much of charity claims are given by the resident physicians of the city who, when it becomes plain that a patient needs a trained nurse, very rightly express this patient to an almshouse. These cases nearly

always die, mutilating the reports. In reviewing the details of the cases in question, we find that many of them died within the period of two or three days, all of whom will certainly be included within these two objections. By taking into consideration these facts, debarring at the same time those cases that may come under the objections, we do not think that more than 30 to the 100 would have formed the ratio.

In the treatment of these cases we had the opportunity and the privilege of weighing the intrinsic value of many of the methods of treatment in vogue. Following the ideas and precedents of those in authority, both as to pathology and as to treatment, we stimulated the right ventricle of the heart with the preparations of digitalis, believing that we could thereby drive the current of blood past an impediment in the lungs, which impediment caused a strangulation of blood and produced either a cardiac syncope or a cardiac exhaustion. We stimulated with the salts of strychnin with the hope in view of dispelling a cardiac neurasthenia—an excellent opportunity to prove, if there be, the influence of heart stimulants in pneumonia. This procedure merely served the doubtful purpose of making an organ, the heart, go faster under a load which it could neither carry nor lay aside; and finally, when goaded into insensibility, it succumbed to a too early dissolution.

When this made the treatment in by far the greater number of cases, we were forced to infer that heart stimulants were of no appreciable advantage in the treatment of pneumonia, but, on the contrary, may do much harm. When the heart is carrying its imposed load to an advantage, to stimulate it to a greater energy would be fallacious; and when impending dissolution is evident, we need something of more value and strength than strychnin or digitalis. These merely display and exhaust latent energy that may otherwise be used to a profit. We have seen this well proven in an instance in which, notwithstanding a wiry pulse of 160 with apparent collapse, the patient with pneumonia was given 20 gtts. of the tr. aconiti. every three hours to reduce the rapidity of the pulse. In spite of this cardiac depressant the patient recovered, establishing the probability that the latent, inherent power of the heart is held at such equilibrium that, unless we poison or destroy this power, we have neither the means to increase nor the ability to diminish. To increase the speed or the force of a pulley drawn by a limited amount

of steam power without at the same time generating more steam, leads to an early exhaustion of power. This well-known law of mechanics may be aptly applied to the principles that govern the engine of life. The nerve force and inherent power of the heart are limited; the energy expended is just so much as the exigency demands at any time; when the heart fags in an exigency it illustrates the conservatism in the economics of nature; and when we make the assumption that more energy is needed than is being supplied in the heart's beat, we say that nature is selfish and works to her own destruction.

When we had been discouraged with the use of the heroic treatment, we thought that less treatment, and not so much interference on our part, would be better, on the hypothesis that pneumonia was an essential infectious fever, whose duration was limited to the life of a microörganism; that the destruction of the microörganism was effected by certain changes which occurred in the blood of the individual, either as a result of the presence of the microbe or its secretion in the blood, or as a chemicotoxin inherent to the blood in the presence of such organisms. To this end, and for the comfort of the patients, we administered $\frac{1}{4}$ gr. of morphin according to the nature of the case. Among this number there was a mortality of only 15 per cent. In considering this decrease in percentage of those who died, we must not view it from the point of treatment. It certainly could not be connected with any form of treatment, but, apart from this, was due to material causes—attenuation of the specific organism, protection from a secondary infection of the exudate, greater constitutional strength of the individual, etc.

Now what do we learn from our observations in regard to the value of the treatment employed, when we have considered the finding at the autopsies and the high mortality? If, as we before have said, we take pneumonia to be a specific infectious fever, the treatment used was useless; if death in pneumonia is the outcome of a pyosepticemia, the treatment was hopeless. As a plea for better treatment the question naturally arises, what is a more rational treatment? Which question involves us in many intricacies of thought.

The science of medicine is constructed on both the laws of induction and the laws of deduction. We have circumstance, cause, and phenomenon. We apply a specific cause to an unknown cir-

cumstance and vary a constant phenomenon; we ascertain from the nature of the varied phenomenon the nature of the unknown circumstance. We have in this manner of applying specific remedies discovered specific causes. If, in like manner, we have a known cause and a constant phenomenon which is made to vary by effects of unknown remedies, we make known specific remedies for specific causes. But the error into which investigations in the sciences naturally go, is the fallacy, *post hoc ergo propter hoc*. This is far more likely to control an influence in the medical science than in any other; since, in the anatomy of man, the functions of the several organs are so combined that a single circumstance may be followed by several phenomena, which increases the difficulty of ascertaining the particular phenomenon of a particular circumstance.

If we apply this method of analysis for discovery of a more rational treatment in pneumonia, we may better approach our question; because, in pneumonia, we have as the positive factors the strength of nature and the strength of medicine; as a negative factor we have the pneumococcus. If the positive elements be stronger than the negative element, we have a cure; if the negative element is greater than the positive elements, death results. But we know that with only one positive circumstance we may effect a cure—the patient recovers with the strength of nature alone—may recover without treatment. If then it is possible for one to die with the strength of nature and the power of medication both at his service, and if at the same instance it is possible for him to recover merely by the strength of nature alone, of what should the medication consist in order that he may escape death at all times? The solution of this seems to be possible. We must find out the base of this natural immunity in order that we may supply the natural deficiency with a like reproduction. Pane and de Renzi are experimenting in this cause and have received the approbation of the medical profession in their efforts to give to the people an antitoxin serum. This idea was given form some years ago by Dr. Cunningham, when he thought to give to the blood an antitoxin element by a hematoclyster of normal salt solution. Among the number of cases under operation there was one treated with subcutaneous injections of oxgall, suggested by an apparent mitigation of the pneumonic process in one severely jaundiced. This patient recovered, but as to the changes produced by the oxgall we cannot say.

It may be some time before the serum treatment of pneumonia becomes the established treatment with the medical world, yet it stands to our thinking that it is the only treatment proposed so far with a rational basis. It will have to push away many impediments, as was the fate of Roux's serum, because pneumonia, as diphtheria, may be a protean disease which may destroy life of its own power, or which may prepare the soil for the growth of other microorganisms whose power is even more formidable.

There is a custom of precedence in the judicial world, based on the doctrine of the rights of the individual, that all decisions and all decrees must be made on the opinion of learned judiciaries who have long since passed away. So that an error made three centuries ago must stand as a right today. This, they say, must be so, or else the entire legal fabric would be destroyed when altered. The result of this rule is that the science of law has virtually remained the same for many centuries, and those who have espoused the science have given their efforts not to the improvement of the law for the happiness of the people, but to the finding out its ancestral meaning, or to the discriminating between its spirit and its letter, that the people may not forsake the law. The fathers of the medical science have foregone this narrow idea and have bequeathed to their successors the text *semper cognoscente* as the best legacy.

ABSCESS OF THE UTERINE WALL.

BY W. W. TAYLOR, M.D.

MEMPHIS.

Gynecologist to St. Joseph's and the Memphis City Hospital.

Mrs. C., 21 years of age, primipara; was confined September 8th. The labor was difficult, requiring a forceps operation. She thought that she was making a fair recovery, and at the end of ten days was able to leave her bed. She thinks that during this time she had no fever, though the thermometer was not used. On about the nineteenth day after her confinement she was taken sick with pain in the right iliac fossa and had high fever.

On October 3rd she was admitted to the hospital, with a temperature of 104°F., pulse 130, and very anemic. During the three days she was in the hospital before the operation her temperature ranged from 102° to 104°, and pulse from 120 to 130. The cervix was lacerated, and in the right ovarian region a firm mass could be felt.

Operation October 6th—Celiotomy. An abscess was discovered in the uterine wall immediately below the right cornu, and communicating with a small abscess cavity of the broad ligament. Other parts of the uterus were soft and boggy, but not involved

in the inflammatory process. The appendages were normal. After shutting off the peritoneal cavity well with gauze packing, the abscess was incised and about an ounce and a half of pus was evacuated. The abscess cavity was mopped out with peroxid of hydrogen and packed with iodoform gauze. Other gauze was also introduced into the pelvis for drainage and the abdomen closed. The patient had a very easy, uneventful recovery.

In the case just reported the patient is probably mistaken in the statement that she was well for awhile after her confinement. It is likely that she had a septic endometritis all the time, which gave no palpable symptoms until the formation of the abscess and its invasion of the broad ligament. The case illustrates a fact that has been often noted before, that, as a rule, the infection in puerperal sepsis travels by way of the lymphatics and blood vessels and not through the tubes and ovaries. The operation was done with the patient in the Trendelenberg position, and the tube and ovary running over the top of the infiltrated broad ligament were seen to be perfectly healthy and without a trace of adhesion or inflammation of any kind. As uterine wall abscesses are often multiple, complete hysterectomy was considered, but the patient was in a too feeble condition to stand a more prolonged operation.

In regard to the adaptability of vaginal incision to the case here reported, it may be stated that it required a greater diagnostic acumen than is generally possessed to determine the exact pathologic lesion or the location of the pus until the abdomen had been opened. The purulent infiltration did not invade the whole of the broad ligament, but only the upper portion. The vaginal cul-de-sac was not thickened and indurated and to the examining finger there was no sensation of what has been called pasteboard vagina. The indurated mass felt to be distant from the vagina. Again, with pus near the uterine cornu and with an involvement of only a limited portion of the upper part of the broad ligament, it would have been difficult to reach from the vagina without opening the peritoneal cavity.

Randolph Building.

ADDISON'S DISEASE IN A YOUNG GIRL.—M. Haushalter (*Gazette Hebdomadaire de Medicine et de Chirurgie*, Sept. 14) recently exhibited to the Medical Society of Nancy a young girl, 10 years of age, affected with Addison's disease. The affection was of about two months' standing, and was marked by lassitude, melancholy, and an abnormal pigmentation of the face, neck and back.—*N. Y. Med. Jour.*, Nov. 11, '99.

LAW AND MEDICINE.

SIMILARITIES AND CONTRASTS.*

BY JOHN H. CANTRELL, ESQ.
Of the Chattanooga Bar.

From time whereof the memory of man runneth not to the contrary, the two great professions of law and medicine have stood in close touch, and advanced as it were along the highways of the world's progress, side by side.

Each has been in the forefront of the forces which have led in the battle for better conditions for humanity. The one making for a peaceable and orderly state of society and seeking to protect the citizen in "life, liberty, and the pursuit of happiness;" the other making for health, comfort, longer life and greater strength of mind and body, and contriving to, in a measure, ward off and ameliorate the "thousand natural shocks that flesh is heir to."

At every step, each in its peculiar field has combined conservatism with progressiveness—holding fast to that which is good, profiting by the light of experience and the facts of nature—neither rejecting new truths nor casting aside old truths because of the discovery of those which are new, but seeking to assimilate, harmonize and utilize all truth in the perfection and completion of their respective sciences.

In saying these things, however, I of course mean to apply them to these professions only as represented by their true and worthy members. Verily the people have endured much at the hands of counterfeit lawyers, and suffered many things of many schools of pseudo physicians, magnetic healers and hypnotic suggesters, who, ignorant of every principle of the science of medicine, discover or imagine they discover some fragment of medical truth, and straightway rush naked into the streets and into the yellow journals crying: "Eureka! Eureka! Eureka! Ho, ye sick and afflicted of every tribe and nation, send hither your gold and silver, and the moment it reaches us you shall be made whole!"

How different from the quack and the shyster is the real phy-

* Read before Tri-State Medical Society of Tenn., Ala. & Ga., Oct. 24, 1899.

sician or the real lawyer. Each believes in the ethics of his profession, and has respect for its dignity and honor. Each hates the methods of the charlatan and mountebank, and loves that modest truth and unpretentious quiet which is essentially characteristic of the real and accomplished student of any great science. Each realizes that his relation to his patient or to his client, as the case may be, is one of peculiar trust and confidence, and that, in the very nature of things, the initiative toward the establishment of that relation must come from the patient or the client, who must so often trust his reputation, his fortune, and even his very life, to the care and keeping of his legal or medical adviser.

Alike in sympathies, in conservatism, in adherence to professional ethics, in characteristics of citizenship and in their relations to those whom they serve, the kinship between the professions of law and medicine is still further emphasized by the similarity in the character and instincts of those who unworthily pretend thereto.

The shyster and the quack are birds of a feather. They each belong to the genus fakir and the fleecer species. They are one in motive and method. They are the thieves by the wayside among whom many of the ignorant and unwary do fall. But they can no more be charged against the honorable professions with whose garments they seek to clothe themselves, than can those hypocrites in religion who "steal the livery of heaven to serve the devil in" be charged against the church.

The ass is *more* an ass, the lion *none the less* a lion, because the ass in lion's skin parades, and seeks in vain his master to deceive.

Again. The members of the two great professions under consideration own property together. They are tenants in common of an important field which is being much broadened and more assiduously cultivated during these latter years. I refer to the field of forensic, legal or State medicine, more commonly known as medical jurisprudence—that science which teaches the application of every branch of medical knowledge to the purposes of the law—"which applies the principles and practice of the different branches of medicine to the elucidation of doubtful questions in courts of justice."

Here, too, some striking similarities between lawyers and doctors may be noted. In many, perhaps in most cases, they materially aid the courts in getting at the truth. But, unfortunately, this is not always so. Sometimes the doubtful questions, instead of being

elucidated, are made more doubtful still, and what was at first uncertain becomes confusion worse confounded after the medical experts have had their say. Of course, this is mainly the fault of the lawyers. In their eagerness to win, they too often succeed in infusing a partisan spirit into the medical men. Then, as a result, the doctors disagree in open court just as the lawyers do, both professions are discredited, justice is hindered, and the court and jury are left to guess at the truth as best they can.

I have seen cases in court where the fight between the opposing lawyers and experts might be justly likened to a game of baseball or football, the lawyers standing as the captains on either side, the experts representing the opposing teams, and playing for dear life in favor of the respective litigants by whom they were called to testify—all in the pay of their respective sides, the experts being practically as partisan as the attorneys. A beautiful and striking illustration of the value of this kind of biased testimony is exhibited in the case of *Doolin v. Omnibus Cable Company*, recently before the Supreme Court of California. It was an action for damages for personal injuries to Mrs. Doolin, alleged to have been brought about by the derailment of a car on which she was riding as a passenger. Six physicians made a special examination of the plaintiff, Mrs. Doolin, some time before the trial took place. Three of them appeared as expert witnesses for the plaintiff and three as witnesses for the defendant. They all agreed that, at the time of the examination, Mrs. Doolin had a tumor, either ovarian or uterine, about the size of a cocoanut. But they agreed no further. Plaintiff's three experts said in open court that they were satisfied the tumor was the result of the cable car accident. Defendant's three experts insisted that the accident did not produce the tumor, but that the tumor was the original, sole and producing cause of all the ailments of which the woman complained.

The family physician testified that the tumor had steadily increased in size between the date of the examination by the six experts and the date of the trial. With this equal balance of expert evidence, what could the jury do but gallantly resolve the doubt in favor of the woman? However, about ten days after the trial and verdict, the truth became as clear as the sun at noonday. Mrs. Doolin gave birth to a full-term child, and it was unanimously agreed that she had never had a tumor.

Fortunately, it was not too late after "the truth was made manifest" for a new trial, and the Supreme Court aforesaid very heartily approved of the action of the court below in granting the same.

The expert medical witness should be as impartial as the judge before whom he testifies. The paid partisan expert is coming to be a nuisance and a bane. Instead of aiding the court in applying the principles of medicine to the purposes of the law, he becomes an obstruction to the purposes of the law, and an obstacle to the administration of justice. The sooner his banishment from the courts is brought about, the better.

As to how this can be done, whether by the appointment of honest and reputable physicians as State experts paid in all cases from the public treasury, or by some other method, is a question which might well be considered in the further discussion of the evening. Doctors and lawyers alike are vitally interested in the proper solution of the problem.

On the subject of contrasts I shall say but little. However, it must be admitted that we of the legal fraternity labor under certain grievous disadvantages as compared with our cousins of the medical craft.

In the first place, our period of starvation is much longer.

In the second place, no kindly sexton has ever as yet been discovered who could cover up our mistakes.

In the third place, when the lawyer loses a case he gets full credit for it. No man ever suspects that "the hand of an inscrutable and overruling Providence" had anything whatever to do with it.

In the fourth place, after the case is lost and stricken from the docket, and the client has cheerfully (?) paid the costs and charges, no man ever erects a monument to its memory, with an inscription declaring, in letters of brass and enduring marble, that the Almighty alone was responsible.

The truth is, the followers of Æsculapius have received much greater benefits from the "charities of religion" than have the disciples of Blackstone. But, "howsoever these things be," we enjoy a most blessed immunity from midnight calls in zero weather. We think, too, that we stand a better chance to get office than you doctors do. And, while the preachers may not help us out, as they do some we wot of, yet on this "bank and shoal of time" we'd rather bear the ills we have than fly to others that we think we see.

A PLEA
FOR THE MORE THOROUGH STUDY OF
MATERIA MEDICA.*

BY E. A. NEELY, M.D.

MEMPHIS.

Because, I suppose, he knew I had formerly been in the drug business, your Secretary has asked me to write this evening a paper making a plea for a more thorough study of materia medica. The mere fact of his asking me to speak on this subject presupposes that there exists in his mind a belief that the study of this most important branch of medicine has been, and is now being, very much neglected. Those of us who have watched the trend of events in medicine during the past fifteen years cannot but feel that he is right; cannot but feel that something should be done to keep the next generation of medical men from being routinists and prescribers of readymade formulas.

Presuming that our premises are right, presuming that there is really taking place a retrogression in the profession so far as concerns materia medica, we most naturally begin to speculate as to what causes are in operation bringing about this deplorable result; for it is deplorable to think that when a crisis comes to our sons, who may follow us in the practice, they may be caught like the biblical maiden without oil in their lamps. There must of necessity be some cause, or set of causes, which are responsible for this listlessness, this inertia in the study of materia medica. In thinking over the subject there has occurred to my mind three, which appear to me to be worthy of suggestion and comment. I submit them to you without pedantry for your criticism and whatever action seems to you plausible and best.

It would be difficult to discuss this subject intelligently, or to get near the right path to a correct conclusion without taking into account the element of human dislike and aversion to labor, either with the mind or muscles. The man who piled together small mounds of stones on the seashore to commemorate passing events,

* Read before Memphis Medical Society, November 7, 1899.

was the normal man. He had few cares, and his wants were easily supplied. I have often heard it said that this man or that man loved to work. I have often heard men throw such bouquets at themselves, but I have never believed, and still do not believe, that any man loves to work for work's sake. When a man is physically and mentally well, there can be no doubt but that he will frequently experience great delight from labor, but there is behind it a concealed impelling force, centered in the mind. It most frequently is a love of wife and children and home, and a desire that they should have all the comforts obtainable, and that they should live in as good a house, wear as good clothes and take as good a position in the community as he can afford them. Love and pride are the wonderful stimulants which have kept man in a state of excitation and activity, and the sum of his exertions is called civilization. You have no doubt already guessed that I think that a normal indisposition to labor, a natural contentment to let others do the rooting, is one of the causes for the disreputable state of *materia medica* as we practice it now.

Another, I believe, is the very imperfect way in which this fundamental branch is taught in the majority of medical schools. Those of us who have had some service in drug stores know best, perhaps, how very true this is. I do not claim that this experience makes us much better than the average graduate, or that we always use it to the best advantage, but I do presume to say that this intimate association with the crude drugs and a practical knowledge of their different preparations gives the old drug clerk a confidence in and a mastery over his weapons which the didactic lecturer cannot impart. The usual manner of teaching *materia medica* in medical colleges is about like this: The professor enters and says: "Gentlemen, I desire to call your attention today to Senna, a specimen of which I show you." He then passes around a sealed bottle containing some senna leaves. The student takes it, looks a moment, passes it to the next man and the incident is closed to him. The professor then tells them that the leaves are gathered from a shrub which grows in certain localities, under certain conditions, are dried by exposure to the sun, that the preparations of it are an extract, a fluid extract, etc., the dose of each being given, and that when administered internally it has certain effects. When he gets through the students are generally asleep or sleepy. The performance has

not been entertaining. Any medical student had rather read the Old Testament than listen to lectures on materia medica. You ask me how this is to be corrected? I tell you that every medical student, in addition to acquiring a knowledge of the therapy of drugs, ought to be brought into direct and intimate contact with the drugs themselves. He ought to be taught how to make extracts, and tinctures, and powders, and pills, and ointments. You may answer that the medical student is already overburdened with branches, and laboratory courses, and quizzes and things, but I reply that the medical student is now taking a number of courses that might very advantageously be stricken from his card and a laboratory course in pharmacy be substituted. For instance, the professor of ophthalmology tells the student all about the eye, but advises him not to undertake the treatment of anything more serious than a simple conjunctivitis; the balance of his eye cases he should send, not to him, he does not say that, but to some oculist of repute. Personally, I feel at this distance from my college days that if I had been taught nothing more than the anatomy and physiology of the eye and how to relieve a catarrhal inflammation of it, I should have, from a practical standpoint, been just as well off. The city doctor *cannot* take the responsibility of an eye case, and the country doctor *should* not.

Those of you who have had the advantages of a training with the microscope, and who are now in general practice will, I think, bear me out that it is more of an accomplishment than a necessity. I know that we are polished and broadened by the study, but we get some one else to make our examinations, for the details incidental to microscopic work require more time than the general practitioner can spare. I will not go further along this line of thought than to say, that it does seem to me that the scheme of study for medical students could be revised and reset with advantage to him at several points.

I have mentioned two of the causes which have suggested themselves to my mind, but they are only pathognomonic; their existence has made the third possible and its development vigorous and phenomenal. The first cause of course is a matter entirely for individual regulation. The second can be corrected by public opinion. I mean, of course, professional public opinion. If the medical graduate were a better pharmacist he would not be such an easy

prey for the rapacious proprietary medicine man—the vendor of readymade prescriptions—the man who claims that the compound is prepared by him with special machinery, which has cost him thousands of dollars to perfect, or that his firm has spent vast sums in collecting the crude ingredients in the jungles of Africa or on the dizzy heights of the Andes.

I have been a medical student, and a teacher of medical students, and I know that the man who offers him a prescription is his friend. He sits on his bench above you and looks like he is asleep—but write a prescription on the blackboard and he is wide awake and alert in an instant, and every faculty is aroused as he copies it in his notebook. It is complimentary to the teacher that he should want to copy it, but it augurs no good for the student. As a grown-up doctor he is not very different from what he was as a student, and falls an easy and willing captive to the wiles of the readymade prescription man. If the doctor is willing to prescribe, there are plenty who are willing to make. If the doctor is willing to indorse them with public testimonials, there are plenty who are willing to wax fat on his good name, and we cannot blame them. They are not in business for their health, or the good of their country. It seems to me that the question is now, in language of the poker player, up to the doctor. His arsenal is being debauched and his enemies are all about. I will not venture to suggest a remedy, but one should be found.

There is another feature of this proprietary medicine business which has come to be quite a serious one to the busy city practitioner, and that is the time consumed from our office hour in listening to a recapitulation of the virtues of those marvellous preparations of all the different chemical and pharmacal companies by their drummer, who has “just called to call your attention to,” etc. If they multiply as rapidly in the future as they have in the past thirteen years, the time is not a great way off when the doctor will have to employ a clerk to receive them and their samples.

For the ubiquitous drummer, I have nothing but a kind word. He sees according to his light, he travels according to his pocket-book. He is always well dressed, and socially a very pleasant fellow to meet. He will give us a trunk full of samples if we want them, promise to send us anything else we ask for, and will get out if we put him out.

In a spirit of fairness, I feel that I cannot leave this subject without saying that it is entirely inconceivable that among so much that is bad there should be nothing that is good. Some of the remedies presented to us really are very excellent combinations, and some chemical products which come to us patented are beyond doubt scientific and good, but that is not reason enough for the doctor to lend himself as a medium for their introduction to the public, for that is the ultimate result, and the makers know this; it is what they are striving for, while working under the cover of ethics. The only hopeful feature of the situation which I can see is, that the possibility of making enormous fortunes out of the business, as others have already done, will stimulate investigation and research which may ultimately prove beneficial to materia medica. In the meantime the manufacturers are growing fat and the doctor is growing lean.

Masonic Temple.

RATIONAL TREATMENT OF SYPHILIS.—A. H. Ward (*British Med. Jour.*, Oct. 21). The rational treatment of syphilis, according to Ward, is as follows: Mercury should be used alone in the primary and secondary stages in the absence of severe lesions, and treatment should be begun at the earliest moment. The drug should be given in a form easy to take and not irritating to the stomach, and should be pushed to the toleration point, as indicated by slight affection of the healthy gums. When this is reached it should be kept up at that point, but never increased or diminished. The course should continue for two years, that being the period of natural cure or real latency. Iodides should not be used in routine treatment in the primary and secondary stages, as by removing the toxins the phagocytes will be no longer attracted to the germ, and excapsulation and destruction will be hindered. Iodides, together with mercury, should be used in increasing doses in the gummata stage, and a mild mercurial course is advisable later. In intractable cases, with chronic blood poisoning and severe lesions, a large quantity of water taken daily aids the excretion of the toxins, and in the shape of Zittman's decoction is undoubtedly very effective. The main point in the treatment of syphilis, according to Ward, is to push the mercury to the toleration point and keep it there throughout the course.—*Jour. Amer. Med. Assn.*, Nov. 11, '99.

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EDITORIALS.

THE TRI-STATE MEDICAL ASSOCIATION MEETING.

The sixteenth annual meeting of this society, held in Memphis November 14, 15 and 16, a full report of which appears in this number of the LANCET, was the largest in point of attendance in the history of the society. The Secretary informs us that about two hundred visiting physicians were at the meeting, an accurate estimate not being possible, as no register is kept. The exhibits were larger and more pretentious than ever before—an evidence of the importance of the gathering in the eyes of those who handle medical and surgical supplies. Of particular note was the presence of two distinguished visitors, Dr. Thomas Charles Martin, of Cleveland, and Dr. A. B. Cooke, of Nashville, both of whom contributed interesting papers. The program was full, and contrary to the rule, most of the contributors appeared, the result being that the program was not finished in the allotted time. There was the usual assortment of papers—a few good, a few bad, and many indifferent. Malarial hematuria bobbed up with its accustomed regularity, the discussion contributing nothing to our knowledge of the subject, and only demonstrating anew the difficulty of arriving at truth from clinical experience. On this head we note the preponderance of opinion is now opposed to the administration of

quinin in the treatment of this disease, and we presume that this view will ultimately count on its side practically all of the practitioners of this section, since the opposition to quinin appears to be based on a sound scientific, clinical and experimental basis, a support which the quinin treatment can hardly be said to have.

To criticise a condition without offering a remedy is iconoclastic and possibly reprehensible, but at the risk of being both, we are going to tell what look to us to be weak points in the program, and if we are sufficiently urged we may suggest the remedy. In the first place, as to papers. There is no good reason for writing a paper on a complete subject, e. g., typhoid fever, and boring the members and consuming time by a recital of symptoms, etc., of this or other common disorder carefully culled with more or less skill from textbooks accessible to every man present. If a new symptom has been observed, such as the edema mentioned by Dr. DeLoach in entero-colitis, it is of course highly profitable to call attention to it. If new anatomical facts are to be divulged, as was done by Drs. Martin and Cooke, then a complete statement of the same, with their pathologic bearing, the symptoms they may cause or should by all means be dealt with. Or a particular part of a subject, such as the complications of typhoid fever, is a fit theme. But in the majority of cases, whatever new the members of this society have to offer is in the way of treatment, and our opinion is that with treatment most of the papers should deal. Again, they should be short. Let the fountains of the writer's eloquence be poured forth on paper and put in type to be perused at leisure, but let him condense what he reads at the meeting and read only what is of importance. Fifteen minutes at the outside, and preferably ten, should be the time limit on the papers, and we feel that we would miss hearing many words, but few ideas. The same applies to discussions. Three minutes is more than enough to allow each member, and we hope that this, instead of five, will be decided on next year. We do not recall any discussion which could not have been more profitably stated in this time. This would have enabled the society to finish the program at this meeting. One other point is the avoidance of a multiplicity of papers on one topic. An executive or program committee should exist, with power to select which paper or papers on a given topic shall be read—the other contributors being put down on the program to discuss it. The

liberty of the writer should be abbreviated in favor of the liberty and profit of those who listen.

We will conclude with two bouquets. The first and largest is to the officers—especially to the Secretary, who should have one all to himself, since to his energy is due the full program and the satisfactory arrangements. The second is to our humble self. Last year the LANCET published the first and only full report of the meeting ever presented—not excepting one or two volumes of transactions, from which the discussions were usually omitted. Stimulated by our example, the society's official organ had a reporter at all of the sessions, and will doubtless furnish a report of the proceedings in its December number. The shortcomings of the one will be supplied by the other, and between the two the members will secure a complete report of all the papers and discussions.

Any notice of the meeting would be incomplete without a notice of Dr. Barton's excellent splint, one of the few original devices ever presented to the society.

AN ADDITION TO OUR STAFF.

Beginning with the next issue the LANCET staff will be augmented by the addition of Dr. L. L. Meyer, who will assume the duties of editorial secretary. The present staff will continue as before in the discharge of their various duties, but the increase of editorial and other work has necessitated additional help. Dr. Meyer is a graduate of Bellevue, and a man whose professional attainments are such as to materially aid the LANCET in a continuation of its progress toward the high journalistic ideal which we were not mistaken in thinking would be appreciated by our many readers.

WEST TENNESSEE MEDICAL AND SURGICAL ASSOCIATION.—This society will meet at Milan on Thursday and Friday, December 14 and 15. Dr. I. A. McSwain, of Paris, is the Secretary, to whom titles of papers should be sent.

REPORTS OF SOCIETIES.

PROCEEDINGS OF THE MEMPHIS MEDICAL SOCIETY.

Regular Meeting, November 7, 1899.

The President, Dr. B. F. Turner, in the chair.

The meeting was a joint meeting of pharmacists and physicians for the purpose of discussing matters of common interest. Present were, Drs. Turner, Alfred Moore, Ellett, E. D. Mitchell, Erskine, Barton, Farrington, Gardner, Rudisill, Raymond, F. A. Jones, Neely, Reilly, Smythe, Heber Jones, R. H. Mitchell, Kane, Buford, Andrews, Harkness, Griswold, Black, Goltman, Lane, Moore Moore, Crofford, Braun, Pincus, Webb, Krauss, Kennedy Jones, Taylor, Meyer, and H. B. Sanford.

Pharmacists—Messrs. Ward, Treherne, Hamner, Ballard, Besthoff, Crego, Mayer, Lehman, Geiselmann, Renkert, Cole, Gillespie, and others.

Visitors—Dr. Fountain, Messrs. McCown, Kahn and Paquin.

Dr. E. A. Neely read a paper on *A Plea for a More Thorough Study of Materia Medica*. (See page 282.)

Mr. F. W. Ward read a paper on *Some Pharmaceutic Abuses*. He considered especially counter-prescribing and substitution, condemning both. In regard to the former, there was some difference of opinion as to what constituted it. The dispensing of a headache powder, laxative, throat tablet, etc., on request, was not the same as an attempt to diagnose and treat a case. Substitution permits of no excuse. The law requires the registration of the sale of poison, with date, amount, name and address of buyer. (This paper will be published in full in the LANCET.)

Mr. J. C. Treherne read an able paper on *Fraternal Relations*. These can be maintained on the part of the pharmacist by his adhering strictly to the practice of pharmacy. Originally one, medicine and pharmacy soon separated, and in subsequent progress medicine has far outstripped her erstwhile companion, handicapped as she is by the inroads of patent and proprietary medicines, the development of the side line features of drug stores, and the presence of unqualified men in the profession. He condemned all forms of counter-prescribing, substitution, and the presence of soda founts, cigar stands, etc., in pharmacies. They should be conducted

by competent pharmacists, and solely for the dispensing of drugs and medicinal and surgical supplies.

Dr. Wm. Krauss thinks that the prescription of the proprietary medicines by physicians has made such inroads on the druggists' income as to compel him to take up "side lines." Another fault of physicians is their adherence to the old forms of weights and measures. The U. S. P. adopted the metric system twenty years ago, and the government services have used it for ten years.

Dr. Heber Jones thinks the essayists are too easy on the doctors. By prescribing proprietary remedies they compel the druggist to procure them, and the bulk of them remains dead stock. We should prescribe officinal preparations more.

Dr. F. D. Smythe blames physicians for the prescription of proprietary articles, and censures pharmacists for their lax observance of the poison law.

Dr. W. C. Griswold said that physicians often try to tell a patient the probable cost of a prescription, which they should not do unless they are posted as to the market price of drugs. He found pharmacy a most exacting profession. It requires sobriety, education, honesty, diplomacy, and many other virtues.

Dr. E. C. Ellett said that druggists did not hesitate to put up a physician's favorite prescription and dispense it as Dr. So and So's tonic, eye wash, etc. This has happened with two of his prescriptions, and is certainly an injustice to the physician. He would like to know to what extent the doctors would support a pharmacist who would confine himself strictly to the practice of legitimate pharmacy.

Dr. Kennedy Jones condemned the practice of refilling prescriptions, and cited instances in which certain prescriptions were refilled wholesale and the sales assisted by the use of the physician's name. He thought the physicians were primarily to blame for these abuses, since the prescription of officinal preparations only would permit the druggist to make a decent living without these practices, and at the same time be no more of an expense to the patient.

Mr. Sidney Besthoff plead guilty to selling soda water, cigars and candy, and said he was compelled to do it by reason of the inroads of proprietary medicines on legitimate pharmacy. Often when a druggist advises a person to take a physician's instead of his advice, he will go to another drug store and get what he wants.

Dr. J. H. Reilly thinks the patronage extended by physicians to proprietary articles is the root of the evil. He blames medical journals for aiding in increasing their sales by publishing their advertisements.

Mr. Crego asked the difference between a proprietary and a patent medicine.

Dr. Ellett said that medical journals were supported in two ways, either they were published by a publishing house to advertise their books (medical) or were supported by the advertisements, which are largely of proprietary articles. In but few instances does the subscription price pay for the publishing of a journal. A patent medicine is a secret medicine, and usually is advertised to the laity direct; a proprietary medicine is of known formula, but is distinguished by a trade (copy-righted) name.

Dr. M. Goltman reminded *Dr. Ellett* of a case of nephritis with retinitis which they saw together, which had been treated by a druggist for four months. He would surely favor anyone who would practice legitimate pharmacy.

Dr. Krauss does not think the refilling of prescriptions is much abused, nor can it be prevented.

Dr. G. G. Buford said that recent decisions hold that the prescription is the property of the patient, and cannot be kept from him if he wants it to take elsewhere for subsequent filling. Druggists should not countenance refilling, however.

Mr. Besthoff said that the prescription blank might contain the words, "Do not refill."

Dr. Neely said that it was an imposition for doctors to accept and use prescription blanks paid for by druggists, and they should stop using proprietary remedies.

Mr. Treherne said that the druggist was paid not only for the medicine but, like the doctor, for his skill and knowledge.

Dr. Neely presented the following resolution:

Resolved, That it is the sense of the Memphis Medical Society that the prescription of proprietary medicines by physicians is to be condemned.

Carried.

On motion of *Dr. Taylor*, a vote of thanks to Messrs. Ward and Treherne for their papers, and to the other druggists for their attendance, was put and carried.

PROCEEDINGS OF
THE TRI-STATE MEDICAL ASSOCIATION
OF MISSISSIPPI, ARKANSAS AND TENNESSEE.

Meeting held at Memphis, November 14, 15 and 16, 1899.

The meeting was called to order by the President, Dr. E. H. Martin, of Clarksdale, Miss. After a prayer by Rev. W. H. Neel, the address of welcome was delivered by Duncan Martin, Esq.

The minutes of the previous meeting were read and adopted.

Dr. Wm. Krauss, as one of a special committee on legislation, made a verbal report of the committee's efforts to have a law passed prohibiting the sale of morphin and other narcotics except on a prescription from a physician. Dr. Krauss said he made a special trip to Nashville and appeared before the judiciary committee. That committee rejected the bill on the ground that such a law would create a monopoly in favor of the physician, which would operate against the druggists. Dr. Krauss said the Nashville physicians gave him every assistance, but the bill could not be passed.

The President appointed a credentials committee as follows: Alfred Moore, of Memphis, McNeil, of Olive Branch, Miss., and Wilkins, of Lewisburg.

Dr. Wm. Krauss moved that the program as arranged be strictly adhered to, any physician failing to appear in his turn being dropped to the bottom of the last day's session, the other papers moving up accordingly. Carried.

The first paper was *An Address on the Progress of Medicine*, by *Dr. Frank A. Jones, of Memphis*. Only a few subjects were discussed. Malaria enters the body in some unknown way, nor do we know its life history outside of the body. From good authority we now believe it to enter the body by the bite of the mosquito. The writer was the first one in the Mississippi Delta to protest against the use of quinin in malarial hematuria, which is neglected malaria. Quinin antagonizes the plasmodium but not the toxin it produces. Paresis of the bowels was often seen by him in this condition, but is not touched upon by textbooks. Typhoid fever is on the decrease, thanks to sanitation and preventive medicine. Tuberculosis, he

thinks, is inherited. The negro is very prone to this disease, and also to venereal diseases. There is still a wide difference as to who should treat appendicitis, the physician or the surgeon. The address closed with a tribute to American physicians.

Dr. Alfred Moore, of Memphis, presented a specimen of *Monstrum per Defectum*. It was born of youthful parents. The mother had a vulvo-vaginal abscess one year before and the father syphilis three years before. An attack of pelvic inflammation was followed in ten days by a miscarriage, the left foot and cord presenting. The placenta was pulled out with the fingers. The fetus showed *acrania* with pseudo-encephalocele and other deformities. The abdominal cavity contained the liver, kidneys, appendix, bladder, internal genital organs, and a portion of the small intestine. The thoracic cavity contained the heart, spleen, stomach, lungs, and most of the small intestine, a knuckle of which passed through the foramen magnum. The diaphragm was present.

Dr. Wm. Krauss, of Memphis, said that such cases are extremely rare. He had dissected one at the Pathologic Institute in Wurzburg University.

Dr. N. F. Raines, of White Haven, Tenn., read a paper on the *Management of the Insane*, giving the methods in use at the Shelby County Poor and Insane Asylum, of which he is Superintendent. The surroundings should be as cheerful as possible. He objects to the word "asylum;" they should be called hospitals for the insane. Psychological treatment, suggestion, encouragement and sunshine are valuable. Exercise must be taken, diversion, singing, music and other amusements furnished, and everything kept clean and attractive around them. Games, pictures, flowers, etc., contribute to a good result. Good food, personal cleanliness, care in regard to visitors, avoiding a dense museum air, and individual attention to each case, were insisted on.

Dr. J. S. Stanley, of Verona, Miss., thinks the appointment of staffs of physicians to asylums tends to avoid routinism and furnish the best care to each patient.

Dr. M. Goltman, of Memphis, has worked among Dr. Raines' patients and approves of Dr. Stanley's idea. He found many of the women with pelvic trouble, and in two of them operation cured the insanity. In another case temporary cure was brought about by removal of a cyst of the brain, and in still another very remarkable improvement followed castration.

Dr. R. W. Barton, of Marion, Ark., mentioned a case in which insanity with homicidal tendencies was cured by a purgative and quinin.

Dr. Wm. Krauss said that *Dr. Raines* deserved the greatest credit for his efficient administration and many improvements in the conduct of the county asylum. These positions are political, and usually are filled by some one whose sole qualification is a "pull."

The paper was further discussed by *Drs. Reilly and Buford*.

Dr. Wm. Krauss read a *Report of Four Months' Service in the Medical Department of St. Joseph's Hospital*. (To be published in January number of the LANCET.)

The President asked if the estivo-autumnal organism would yield to quinin. He favored giving it hypodermatically in the beginning of this form.

Dr. F. A. Jones asked if *Dr. Krauss* had seen paresis of the bowels in malarial hematuria, and what was the pathology.

Dr. R. W. Barton said he had seen paresis of the bowel once in this disease.

Dr. J. R. Crow, of Charleston, Miss., thinks malarial hematuria should be treated by quinin in large doses. In one case he gave 160 grains in thirty-six hours (per enema).

Dr. J. H. McLendon took the view that *Dr. Crow's* patient got well in spite of the quinin.

Dr. M. Goltman, in regard to some of the cases of dysentery, emphasizes the value of stretching the sphincter. He gives quinin in malaria when the fever is declining.

Dr. Wm. Krauss said that the estivo-autumnal organism is quite resistant to quinin; that he had never seen paresis of the bowel in hematuria. In giving quinin hypodermatically he injects into the flank or under the scapula only, largely diluted, with an antitoxin syringe. The pathology of intestinal paresis is traceable to the splanchnic area of the sympathetic.

The President's Address was read by *Dr. E. H. Martin, of Clarksdale, Miss.*, on *The Grain of Truth and the Grain of Salt*. We have few specifics in medicine, hence we are constantly on the alert and experimenting. All things should be examined for the grain of truth, however foolish and superstitious they may seem. The grain of truth in homeopathy is utilized in our serum-therapy; that in

faith cure, Christian science, etc., in our hypnotism. When our usual means do not suffice, the physician should not fail to make use of the help a "fake" may offer. Many of the theories propounded, e.g., those of Koch's lymph, Edson's aseptolin, Brown-Séquard's elixir, etc., were contaminated by a grain of salt. Empiricism is the mother of scientific medicine.

Dr. E. C. Ellett, of Memphis, read a paper on *Remarks on Diseases of the Eye, Ear, Nose and Throat in the Negro*. (To be published in the January number of the LANCET.)

Dr. Jere L. Crook, of Jackson, Tenn., said that in three hundred examinations of the color sense in negroes for the Illinois Central R.R. only two were found color blind, and these two were the only color blind negroes reported on the system.

Dr. Richmond McKinney, of Memphis, agreed with Dr. Ellett as to the rarity of tonsillar hypertrophy, and the non-existence of adenoids. This last fact is not recognized by eastern rhinologists.

Dr. J. F. Hill, of Memphis, has seen two cases of trachoma in the negro, one of which was very severe. He has not seen any color blindness, but many corneal ulcers. In the nose, the wide nares, unobstructed circulation and mode of living, gives the negro comparative immunity from colds.

Dr. Jacob Deutsch, of Memphis, said that a mechanical as well as atmospheric cause of catarrh should be recognized. He asked why the essayist had not mentioned ozena.

Dr. Sauls, of Saulsbury, Tenn., said that in forty years he had not seen a cataract in the negro.

Dr. Frank A. Jones said that if Dr. Sauls would come out to the East End Dispensary he would show him a hundred.

Dr. J. L. Minor, of Memphis, agreed in the main with the essayist's observations, but thought he underestimated the frequency of trachoma in the negro. He has published a number of cases in answer to Burnett's statement as to their rarity, and quite a number are reported from the New Orleans hospitals. Iritis is very common, and due to untreated syphilis.

Dr. E. C. Ellett said that as he did not examine for any railroad he had no observations to make as to color blindness in the negro, but reiterated the statement as to the frequency of cataract. Trachoma is not common in this locality, and he has seen very few cases in the negro. Ozena is a symptom, and means either atrophic rhinitis or syphilitic rhinitis, both of which he had considered.

Dr. A. B. DeLoach, of Memphis, read a paper on *Enterocolitis in Children*. It is due to improper food. Streptococci and the ameba coli may be present, but we cannot say that they are a cause. Infectious diseases, bad hygiene and seasons (July) predispose to the disease. It is most frequent in the month having the highest mean temperature. The bowel may present catarrhal, ulcerative or membranous inflammation. Ulcers are common, follicular ulceration being found in $33\frac{1}{3}$ per cent. of cases. Larger ulcers are seen in the colon and lower ileum, penetrating to the muscularis. It is to be diagnosed from typhoid and intussusception. In treatment the diet is all-important. The breast is the best diet. A purgative (oil) should be given and repeated in three hours if it fails to act. Milk, skimmed, boiled, peptonized, diluted with rice water, beef tea, beef juice, meat broths, white of egg and barley water, etc., must be tried till a food is found that does not disagree. Do not feed too often. Brandy, one to ten of water, is the best stimulant. Irrigation of the rectum with saline solution, boric acid and witch hazel may be used. The writer does not approve of nitrate of silver; opium by mouth or rectum, with starch water, is often of use. The prognosis is guarded.

Dr. D. D. Saunders, of Memphis, spoke of the edema of the face and extremities, to which the essayist alluded, as evidence of faulty kidney action.

Dr. F. D. Smythe, of Memphis, has never lost a case. He uses cold packs, calomel, ipecac and calcined magnesia, and withholds food for twelve to twenty-four hours. He thinks milk is a positive poison in this disease. Astringents are of no value.

Dr. I. A. McSwain, of Paris, Tenn., thinks children are fed too often, and don't get enough water. He advises the withdrawal of food in this disease, especially milk.

Dr. B. G. Henning, of Memphis, said that the symptoms vary from a simple diarrhea on to the worst forms. Mucus in the stools is indicative of the third stage of catarrhal inflammation; at first there is constipation from inflammatory paresis, as is seen in peritonitis. Milk is the diet for infants of all ages. He prefers the top of the milk and rice water, in equal proportions.

Dr. G. G. Buford, of Memphis, finds the cases are much harder to manage when they get started than when taken early.

Dr. Alfred Moore favors milk whey as a diet.

Dr. Heber Jones, of Memphis, said that all mothers do not give good milk, nor does milk always agree. Facts cannot be dethroned by theory, and it is a fact that he has used beef juice in many cases to advantage, in cases where milk did not agree.

Dr. W. B. Sanford, of Memphis, thought the child's diet should be a diversified one in health from the beginning.

Dr. A. B. DeLoach said that ipecac was contraindicated, because it might produce vomiting. He withholds food until the stomach is retentive. The casein in milk often seems to act as a foreign body. He has never tried whey.

Dr. A. G. Dickson, of Paragould, Ark., read a paper on *Cholera Infantum*. After giving the symptoms, he stated that he precedes his treatment by a hypodermic of morphia and atropia, then uses enemata, phenacetin, astringents, with lactopeptin and opium. He uses calomel in mild cases only, as its action is too slow for severe cases.

Dr. J. H. Reilly, of Memphis, read a paper on *Abscess of the Lung Following Pneumonia, with Report of a Case*. This disease arises from a debilitated constitution, and is predisposed to by Bright's disease, alcoholism, etc. The abscess usually forms about the time a cure of the pneumonia is looked for. The symptoms become more distressing, of a septic character, and cough and expectoration increase. Consolidation persists, and we have no positive sign till the pus breaks into a bronchus and is expectorated, when signs of a cavity may appear. Suggestive of tuberculosis, the sputum shows no bacilli, but elastic fibers, Leyden's crystals, hematoidin, and bilirubin. Pneumococci and the organisms of suppuration are also found. The fetor of the breath and great depression seen in gangrene are absent. If at the base, an abscess may be mistaken for empyema. The abscess cavities are usually small and multiple. The writer thinks that many cases are diagnosed as empyema, especially in children. The case reported was that of a man aged 56, who had pneumonia. In the third week the cough and expectoration increased, the sputum containing the diplococcus of pneumonia and staphylococci, but no bacilli. Under chloroform resection of the fifth and sixth ribs in the axillary line was done by Dr. Saunders. When the chest wall was opened the patient collapsed and was only resuscitated by inverting him. Half a pint of thick, foul pus was removed and a tube inserted. Irrigation was practiced

on alternate days for a while, the solution being coughed up as fast as injected. In a month the wound closed prematurely; cough and expectoration returned and the wound was reopened and a gauze drain inserted. The opening finally closed, but a second attack of pneumonia, coming on while in another city, with metastatic abscesses in the kidneys, caused his death. A second case showed pain and a fluctuating tumor, both of the right axillary line, with cough of one week's duration. Half a pint of foul-smelling pus was let out and found to contain elastic fibers and crystals, with Friedlander's bacillus. Recovery. Murphy first collapses the lung by intra-pleural injections of nitrogen gas, then opens, locates and incises the abscess. The prognosis depends on the size, number and location of the abscesses and the condition of the patient.

Dr. D. D. Saunders said he saw the case referred to by *Dr. Reilly*. He corroborated the points brought out by the essayist. He regards irrigation of the cavity in the lung as a procedure requiring much care, and liable to be followed by a fatal issue.

Dr. F. D. Smythe advised irrigation by the double tubes.

The paper was also discussed by *Dr. Jelks*.

Dr. E. M. Holder, of Memphis, read a paper on *Abscess of Liver, with Report of Case*. Abscess of the liver is a tropical disease, rather frequent in the South and among the negroes. When located it should be opened and drained, exposing and stitching the liver to the abdominal wound before opening it, this being all done at one sitting. Hemorrhage is a frequent complication of the operation and is best controlled by suture. A case was reported in which the abscess was due to traumatism, and after verifying the diagnosis by aspiration the abscess was opened. The ninth rib was resected and the liver sutured to the wound and opened. Half a gallon of pus was evacuated, the cavity packed, and recovery rapidly followed.

Dr. F. A. Jones saw *Dr. Holder's* case. He first suspected pleurisy, but on further examination made a diagnosis of abscess of liver. He has seen three cases of abscess of the liver in the last six months, and thinks they are more frequent than supposed.

Dr. F. D. Smythe said that abscess of liver sometimes follows hemorrhoids. He prefers the operation done at one sitting. He reported a case of abscess of the liver in a young physician who had been treated for typhoid fever. He did a similar operation to *Dr. Holder's*—stripping the periosteum from the rib and making the operation comparatively bloodless.

Dr. J. H. Reilly is surprised that no microscopic examination of the sputum was made for tubercle bacilli.

Dr. T. C. Martin, of Cleveland, Ohio, reported a case of abscess of the liver in which a similar operation was done. He had a fistula follow opening below the ribs.

Dr. W. B. Burns, of Deckerville, Ark., has seen cases in his practice caused by malaria and diseased kidney.

Dr. T. J. Happel, of Trenton, Tenn., thinks many cases get well without surgical operation.

Dr. J. S. Stanley has treated cases of abscess of the liver which ruptured spontaneously into the alimentary canal, and indorses letting nature take its course.

Dr. E. M. Holder was glad that *Dr. Happel* mentioned the medical side of treatment. He has seen a case rupture into the pleura and intestinal tract. He advocates stripping the periosteum from the rib.

W. B. Sanford, of Memphis, read a paper on *The Cause, Diagnosis and Treatment of Retrodeviation of the Uterus*. All retroflexions are not preceded by versions, but neglected versions are apt to become flexions. They are usually caused during the puerperium and menstrual period in virgins by anything causing increased intra-abdominal pressure. Special attention should be given the bladder and rectum. Flexions and versions occur in nullipara, who then are sterile. Nine-tenths of the cases of sterility have flexions or versions. The puerperal state is the cause in a large majority of cases. After labor and the following sixty days is the most fruitful time for their causation. The diagnosis is easy. They are usually accompanied by ovarian disease. The treatment is medical, surgical and prophylactic (during pregnancy). Tonics, rest, electricity, diet and keeping womb in position by supports and pessaries, constitutes the medical treatment; curettement, repairing tears, Alexander's operation, ventro-fixation, etc., the surgical.

Dr. Alfred Moore takes issue in regard to the use of the sound. He never uses it as a means of diagnosis, but prefers to examine under an anesthetic.

Dr. J. L. Jelks, of Memphis, wants to emphasize the complications of the rectum and bladder by engorgement. If the probe is aseptic he sees no objection to it.

Dr. W. B. Sanford rarely uses the probe, and spoke of the implication of the rectum and bladder due to engorgement.

Dr. Edwin Williams, of Memphis, read a paper on *Arguments in Favor of the Early Use of Forceps*. His arguments are as follow :

1. It saves the mother a continuance of her pain, especially nervous primipara.

2. They are indicated where injury to mother or child threatens.

3. It does not increase risk of rupturing perineum.

He removes the forceps when he can reach the chin through the rectum. He does not approve of quinin to increase pains. On the whole he believes in giving nature a good chance, but believes in aiding her when his judgment indicates, which is early.

Drs. W. B. Sanford, Alfred Moore and R. W. Barton advocate the early use of forceps.

Dr. F. S. Raymond, of Memphis, says we use forceps in other people's families but not in our own, and advises not to put on the forceps unless you are sure delay will cause injury.

Dr. J. W. Sanford asks if *Dr. Williams* objects to quinin on the ground that it increases the liability to post-partum hemorrhage.

Dr. Edwin Williams does not think quinin has any such effect.

Dr. W. S. Wilkins, of Lewisburg, Miss., read a paper on *Some Points in Malarial Hematuria*. Malarial hematuria is not a disease *per se*. It is a sequel to a long-continued and poorly-treated case of malarial toxemia. Its definition—blood disintegration. This is the only morbid change found in this condition. It is not a disease of the liver or kidney. He has treated forty cases in the last two years with good results. He used quinin but once, and opposes its use in this condition, and advocates an eliminative and supportive plan of treatment. He thinks quinin aggravates the blood disintegration and the kidneys become choked up with broken-down blood corpuscles. Uremia was the common cause of death where quinin was used.

Dr. Wm. Krauss asked *Dr. Wilkins* how he reconciled his statement that these cases usually died of uremia with his statement that there was no kidney or liver pathology.

Dr. T. J. Happel, of Trenton, Tenn., read a paper on *Pseudo Smallpox in Gibson County, Tenn.* He reported quite a number of cases where vaccination did not prevent this disease. Ordinarily the death rate in smallpox is high, while among these cases there were no deaths. In these cases the eruption was general, passing through the various stages of papule, vesicle and pustule, but not

surrounded by an inflammatory base and leaving no scars. There was an absence of pain and itching in most cases. This disease was only infectious in the last or pustular stage. There was no regularity about the appearance of the eruption and no medicine was given.

Dr. Heber Jones thinks the disease in and around Memphis is genuine smallpox. It has been somewhat irregular in symptoms, and the death rate has been small. He thinks vaccination will prevent an outbreak of the disease, and gives some statistics of the outbreak at city hospital, where some parties properly vaccinated contracted smallpox. He thinks *Dr. Happel* is mistaken in his diagnosis.

Dr. F. S. Raymond said that *Dr. Happel* surprised him, as he thinks the cases were smallpox. Cases in the negro pit but little; vaccination will protect if done properly and at the right time. Maybe the Porto Rico smallpox, which is mild, and may have gotten here during late war. He thinks *Dr. Happel* looked for too severe attacks.

Dr. Wm. Krauss thinks *Dr. Albright* has successfully diagnosed smallpox in these cases, and thinks *Dr. Happel* sincere but mistaken.

Dr. T. J. Happel says vaccination will prevent true smallpox but did not prevent this disease, therefore he feels sure this disease is not true smallpox.

Dr. F. D. Smythe, of Memphis, read a paper on *Vesical Calculi—Report of Four Cases in Children*. Calculi commonly exist in persons 40 to 60 years of age. The symptoms are the same as in adults, except there is great hypertrophy of the external genitals and prolapse of rectum. The treatment is prophylactic and surgical. Diet is the principal prophylactic treatment.

Case I. White male, aged 5; general condition bad. Was put on tonic treatment for few days and then did suprapubic operation. Patient died.

Case II. White male, aged 4. History of stone dated back two years. Urine filled with pus; temperature 103°F.; inflamed prepuce; stone filled the bladder; patient septic. Stone removed by suprapubic route. Patient died.

Case III. White male, aged 3. Much pain and tenesmus. Stone detected by finger in the rectum and exploration. He has not yet operated on this case.

Case IV. Negro male, aged 2. Child badly nourished; prolapsed rectum; click heard on exploration. Suprapubic operation. Recovery. Case presented to the society.

The negro race presents the large majority of cases, and the condition is very rare in females. Stones are usually of the uric acid variety, and are common in all localities, with no relation to the quality of drinking water. He urges rectal and bimanual examination. The treatment is essentially surgical after the stone is found. The suprapubic operation is the ideal one.

Dr. W. D. Sumpter, of Nashville, thinks the diagnosis is easy. Solvents are no longer resorted to. He reported a case similar to Dr. Smythe's, in which he used the smallest silver probe as a searcher. He never uses a catheter unless the child cannot pass his urine. He uses catgut or silk for suturing.

Dr. T. J. Happel said that out of six cases of vesical calculus in children he had seen, two were in female children.

Dr. Watson, of Eudora, Miss., reported a case in a child which was one of the number upon which Dr. Smythe operated.

Dr. C. R. Shinault, of Helena, Ark., said that vesical calculi in children were almost unknown to him.

Dr. F. D. Smythe has never found a stone in the bladder of a female. Early diagnosis and treatment are important to prevent complications.

Dr. Wm. B. Burns, of Deckerville, Ark., read a paper on *The Mosquito as a Definitive Host in Malaria*. The relation of the mosquito to malaria was observed in the last century. The entomology of the mosquito was discussed fully. The female alone is related to the cause of malaria, as the male does not require food at all. The insect infects its larvæ and these are taken in with dust, water and food. Koch is convinced of the power of mosquitoes to transmit the disease, and even that it is the only means of inoculation. Dr. Burns, in his own investigations, was not able to find the bodies described by Thayer, Koch, or Ross. He, however, has found some pigment which was non-motile. He concludes that if the mosquito is to be accepted as the definitive host in malaria, war must be declared against this insect.

Dr. C. R. Shinault, of Helena, Ark., read a paper on *Hot Scrub Baths, an Important Factor in the Treatment of Malarial Complications*. Inasmuch as he had found that malarial patients were greatly

benefited by a trip to Hot Springs, the idea suggested itself to him to try the hot baths on his malarial patients at home, and he has done so with good results. In addition to adding to personal cleanliness, it is a peripheral, vascular exercise. He uses friction with the bath.

Dr. F. D. Smythe concurs with Dr. Shinault, as he thinks nothing can take the place of heat and friction in many diseases.

Dr. John L. Jelks, of Memphis, read a paper on *A Rectal Curiosity—Case Report with Photograph—Some Points in Pelvic Surgery*. The case was one in which hemorrhoids had been treated by injection. The tissues around the anus sloughed and the rectum presented as an inflamed mass the size of a cocoanut. No operation was attempted, but it was thought that the best plan would have been to open the abdomen and draw up and anchor the large intestine, thus reducing the prolapse, and later to try to build up a perineal body. Perineal suppuration tends to burrow more when situated anterior to the center. Suppurations in this part should be dealt with by early free incision.

Dr. A. B. Cooke, of Nashville, strongly condemns the injection of hemorrhoids, as also does Kelsey. It is not curative, as the trouble will recur in from three to five years. It may cause sloughing.

Dr. T. C. Martin, of Cleveland, O., says that injection is not precise, non-curative, and unscientific.

Dr. F. D. Smythe condemns injection. He ligates internal and excises and sutures external hemorrhoids. He has had good results, and while undoubtedly injection cures some cases, we cannot control its effects, and he disapproves of it.

Dr. R. S. Stanley, of Memphis, said that in Dr. Jelks' case injection had been done eight years previously. He likes the ligature operation.

Dr. W. B. Sanford reported a case of strangury of several years duration. He found a urethral stone and removed it, but left hemorrhoids caused from straining. These were injected by a quack. In a week or two Dr. Sanford found the rectum sloughing, followed by peritonitis and death.

Dr. T. J. Happel said that injection had been commonly used by the general practitioner. He has had many permanent cures from it and has never seen abscess or sloughing. He uses carbolic acid but likes the clamp and cautery.

Dr. B. F. Turner, of Memphis, uses injection with carbolic acid and has had no bad results himself, nor has he seen any in the practice of *Dr. Henning*, who uses this method extensively.

Dr. Heber Jones has used injections with good results. A danger is from sudden death due to thrombus or an air bubble. He has seen two fatal cases. One died in one minute, the other from secondary hemorrhage four days later.

Dr. Sidney Witherington, of Memphis, has seen bad results, but not fatal.

Dr. J. L. Jelks has used injections and had recurrences in three to six months. He has not seen any permanent cures from injection. All methods may fail in the presence of pelvic inflammation. He saw one injection operation, after which the patient died from hemorrhage.

Dr. A. B. Cooke, of Nashville, read a paper on *The Rectal Valve; an Anatomic Fact and a Pathologic Factor*. The rectum is difficult to examine beyond three inches. Now it is easier by means of instruments. The valves are usually three in number. The largest is three inches up, the next largest at the upper end, then one between these two, and rarely one an inch from the anus. They form a spiral, reaching around one-third or one-half of gut, and are from one-half to three-fourths of an inch deep. They delay the fecal passage. Many authors, including *Kelsey* and *Matthews*, deny their existence, and say they are folds in the mucous membrane. *Martin* says they exist, and are most prominent when the gut is distended. They exist as a fibrous band, which has been confirmed microscopically. He endorses *Martin's* views. The valves may be the cause of benign stricture, as inflammation of rectum may cause hypertrophy and rigidity of these valves. They are a factor in chronic constipation.

Dr. Thos. Chas. Martin, of Cleveland, read a paper on *Obstipation and its Practical Management*. The rectal valves are made more distinct by distension of the rectum. They are composed of the mucosa, then fibrous tissue, then circular muscular fibers, and then areolar tissue and vessels. They project half way across the rectum, and surround more than one-half of its circumference. They are usually three in number, and their use is to delay the feces. Obstipation is that form of obstruction due to organic obstruction. Constipation is delayed feces in the high parts of the gut. In obstipa-

tion there are insufficient stools, varying with diarrhea, intestinal autointoxication, and neurasthenia. The patients acquire the purgative habit. We find benign strictures due to increased fibrous structure in valves, and under these circumstances we can see and feel the thickened valves. The symptoms are often caused by a hypertrophy of the valves short of stricture. The treatment is to expose the valve by the proctoscope, seize it at its edge and determine its size, etc., by a blunt hook. Holding it up with two tenacula, the fibrous layer is cut in two places, the cuts converging to the free border and making a pyramidal flap. Several cases were reported to show the utility of this procedure.

Dr. J. L. Jelks said we can only see these valves with a proctoscope, and not with a bivalve speculum. They are often affected by syphilis. So-called biliousness is often probably intestinal autointoxication from hypertrophy of these valves.

Dr. W. D. Sumpter, of Nashville, read a paper on *Injuries to the Patella—Report of a Case of Stellate Fracture*. After discussing the causes, symptoms and treatment he arrives at the conclusion, from personal observation, that he has obtained the best results with the catgut suture.

Dr. J. L. Crook, of Jackson, Tenn., does not think wiring is usually necessary. He uses U-shaped adhesive plaster strips, and reported a case of bilateral dislocation of the patella (not synchronous) and one of fracture in a negro, who recovered without lameness in spite of absolute disregard of orders to keep in bed.

Dr. J. H. Venn, of Memphis, thinks wiring is the only way to get bony union. All other methods get fibrous union.

Dr. R. W. Tate, of Bolivar, thinks the wire sometimes causes sinus later. He prefers silk or catgut, encircling and not penetrating the bone. He has seen late separation of as much as five inches.

Dr. F. D. Smythe sutures immediately with chromicized catgut.

Dr. M. Goltman advises wiring and is opposed to the strapping with adhesive strips, as it does not coapt the fragments, as proven by X-ray picture. He has seen one case walk after fracture of the patella. He doubts that these fractures can be caused by muscular action unless a tendency to fatty degeneration is present.

Dr. W. D. Sumpter was pleased to hear of the X-ray experience. He thinks fracture can be caused by muscular action. He is careful in drilling holes to make them emerge one-eighth of an inch above the under surface and not into the joint.

Dr. A. E. Cox, of Milan, Tenn., read a paper on *Typhoid Fever; Some of its Complications and Sequelæ.* (To be published in the January number of the *LANCET*.)

Dr. J. C. Copeland, of Memphis, said that the plan in the East was to consider a fever as typhoid when uninfluenced by quinin. The microscopic examination should be made.

Dr. T. J. Happel thinks the Southern doctor is better qualified to diagnose and deal with Southern fevers than the Northern doctor.

Dr. T. J. Crofford, of Memphis, does not think we can call a fever typhoid because it is not influenced by quinin; for in malarial fever complications may exist on which quinin will have no influence.

Dr. Wm. Krauss, of Memphis, mentioned a case having many clinical signs of typhoid, uninfluenced by quinin, that showed no Widal reaction, and whose blood contained "crescents." Subcutaneous administration subsequently relieved the patient.

Dr. W. B. Sanford thinks the treatment is easier than the differential diagnosis. We do not know the exact origin of typhoid. He has seen outbreaks in families not affecting those of their neighbors who came in to nurse them.

Dr. J. L. Crook said that the antiseptic and eliminative treatment was the best. He has seen 125 cases with less than 2 per cent. mortality.

Dr. J. H. Reilly thinks the Northern investigators (Thayer and others) deserve praise and encouragement for their scientific study of our continued fevers. Laboratory work should be encouraged more by the general practitioner.

Dr. C. Travis Drennen, of Hot Springs, Ark., read a paper on *Care of the Mouth and Teeth in the Syphilitic.* The author urges thorough rubbing and scrubbing of the gums with a heavy toothbrush three to four times daily, followed by application of a saturated solution of boric acid. Where the gums are spongy, bleeding easily under this process, alcohol is applied to the gums for the purpose of hardening and bringing about a more healthful condition of the same. Where bleeding ensues it is not to be deprecated but rather encouraged for the time being, for the reason that engorgement is relieved and pathogenic material washed away. The author claims that in following out this method mucous patches and secondary ulcerations about the mouth are measurably pre-

vented. He further suggested that vigorous rubbing or pressure of the gums on either side the teeth with the finger or thumb several times daily during a course of mercury, will do a great deal toward the prevention of salivation. He believes in the mechanical action of mercury, and that ptyalism is produced by a plugging of the small blood vessels in that locality, and that this friction or rubbing of the gums aids in removal of the same. Having followed this plan for many years, during which time he has used ung. hydrargyri locally in large doses, in certain instances reaching $\frac{2}{3}$ oz. daily, he has not had a case of marked salivation.

Dr. Henry Posert, of Memphis, read a paper on *Some Obscure and Obstinate Forms of Neuralgia*. Supraorbital neuralgia is often hard to handle. It is prevalent in early summer, and eye treatment does little good. Brachial neuralgia is very obstinate and often gets well without treatment. Neuralgia extending from the sixth to the last dorsal nerve is especially obstinate, though often benefited by the coal tar products. The same may be said of sciatica. Neuralgia is often incurable. (This paper will be published in the LANCET.)

Dr. T. J. Crofford, of Memphis, read a *Report of a Series of Gynecological Cases*.

Case I. Attempted abortion by the introduction of a hairpin into the uterus. It was removed with difficulty under chloroform without interfering with pregnancy.

Case II. Peritonitis. Operation revealed adhesions and intestinal perforation. The patient recovered, and one month later was sufficiently well to be about. The cause of the perforation was not discovered. He spoke of a case in which perforation was caused by intestinal worms.

Case III. Gunshot wound of the abdomen in a young woman. Laparotomy showed thirteen wounds of the intestines, the colon being injured. These were repaired and the patient recovered and has since gone through pregnancy and labor.

Dr. J. W. Gilbert, of Corinth, Miss., said that the aversion of women to childbearing was the cause of criminal abortion, this being so more often than cases of illegitimate pregnancy.

Dr. Hays, of Byhalia, Miss., mentioned a case in which a girl placed an instrument in her vagina for some unknown reason.

The President spoke of a colored woman who placed a jelly glass three inches tall in the vagina to support a prolapsed uterus. When removed, the prolapsus was found to be cured.

Dr. Alfred Moore has seen a case of lacerated perineum in a young negro girl from copulation.

Dr. J. P. Runyan, of Pine Bluff, Ark., urged early operation in intestinal perforation.

Dr. T. J. Happel said this was especially the advice to be given in cases of gunshot wounds.

Dr. J. P. Runyan, of Pine Bluff, Ark., read a paper on *The Suprapubic versus the Vaginal Method of Dealing with Pelvic Inflammatory Processes*. He has never seen a case where the vaginal route was indicated. Adhesions cannot be broken up through the vagina, and cases thus operated on usually need a second (abdominal) operation. The suprapubic method is radical. Operating through the vagina one is likely to puncture the uterus. It is like shooting at a target in the dark.

Dr. T. J. Crofford endorsed this view in general, but said that often pelvic abscesses could be punctured through the vagina. He thinks there are occasions for the vaginal operation, one factor being the operator's familiarity with the method.

Dr. W. B. Sanford thinks if the diagnosis can be made early a choice of routes is permitted.

Dr. J. W. Gilbert, of Corinth, Miss., read a paper on *Two Cases Reported to Show the Delicacy of Certain Ethical Relations*. The cases were brought to two Memphis physicians for operation and treatment. The people returned to him with feelings changed from those of friendship to enmity, for which he blamed the two physicians. [The circumstances were so explained by the two consultants as to show that Dr. Gilbert was in error in thinking their words or actions had influenced this change of sentiment.]

Dr. R. W. Barton, of Marion, Ark., presented a *New Auto-extension Fenestrated Splint*. The splint consists of four iron screws mounted on sole leather plates. These plates are fastened above and below the seat of fracture by plaster of Paris bandages and buckle screw plates put on the iron screws so that turning them forced the two portions apart, at the same time maintaining fixation, and leaving a large fenestrum for the inspection of the seat of fracture, and allowing the application of dressings to it. A patient

with fracture of the forearm was shown, wearing the splint. Dr. Barton read letters from Dr. Jno. B. Murphy, of Chicago, Duncan Eve, of Nashville, Pettijohn, of Kansas City, and Smythe, of Memphis, endorsing the splint.

Dr. E. H. Martin, of Clarksdale, Miss., thinks the splint is admirable, but questions Dr. Barton's action in patenting it.

Dr. T. J. Happel had read a section of the by-laws of the American Medical Association declaring such an action reprehensible, and asked for a ruling as to the propriety of the society discussing the paper under these circumstances.

The President (Dr. C. T. Drennen) ruled the discussion out of order.

Dr. E. H. Martin appealed from the decision of the chair. The chair was sustained.

Dr. T. J. Happel then moved a fifteen minute recess for the purpose of allowing an informal discussion of the splint. Carried.

Dr. Martin took the chair, and

Dr. F. D. Smythe spoke in favor of the splint and read a letter from the editor of the *Journal of the Am. Med. Ass'n*, saying that physicians might use patented devices, but it was reprehensible for a physician to patent such a device.

The meeting was then called to order by the President.

Dr. Heber Jones moved that a committee be appointed to consider the ethics of Dr. Barton's action. Carried. Drs. Heber Jones, Happel and McKinney were appointed.

Dr. A. L. Elcan, of Memphis, read a paper entitled *Was it a Nervous Reflex?* The case was of a male child, aged 3, with phimosis and a cough. No abnormal physical signs were found in the chest, circumcision was done and the cough stopped.

Dr. G. G. Buford said he thought it was the pain caused by the retained smegma and not a nervous reflex that caused the cough.

Dr. A. B. Oliver, of Memphis, read a paper on *Urethrotomy*. Treatment of strictures by dilatation is condemned. He prefers internal urethrotomy, controlling bleeding by turning the penis up over the abdomen. Local anesthesia is usually sufficient. He also reported a case of *Application of a Madstone* to a bitten child. The virtue of the stone lies in its being light and porous. It has no curative action.

Dr. J. P. Shearon, of Corinth, Miss., read a paper on *Puerperal Eclampsia; Report of Two Cases, with Placenta Previa*. In both cases the child was undelivered. Delivery was at once accomplished, in one case by forceps, in the other by compression of the uterus. *Veratrum viride*, *digitalis*, calomel, salts and bromides were given, the first hypodermically, the last by the mouth after consciousness returned. Both patients were in convulsions and unconscious, but both recovered.

Dr. L. A. Yarbrough, of Covington, Tenn., uses pilocarpin in addition to the treatment mentioned by Dr. Shearon.

Dr. J. S. Stanley, in addition to these measures, uses venesection, which he thinks materially aids in the cure.

Dr. T. J. Happel advocates venesection.

Dr. M. Goltman emphasized the preventive treatment. He has seen cases requiring two months treatment for their relief. He would not give ergot to control hemorrhage in such a case, but would welcome its appearance. He urges venesection and *veratrum viride* in heroic doses.

Dr. McNeill, of Olive Branch, Miss., thinks *veratrum viride* has no place in the materia medica.

Dr. E. E. Haynes, of Memphis, does not indorse routine venesection. Some patients need all their blood.

Dr. F. A. Jones, of Memphis, made some remarks on *Pleurisy with Effusion*. He is opposed to routine resection of a rib in empyema, as it is unnecessary for drainage. He is also opposed to routine irrigation.

Dr. J. H. Reilly thinks Dr. Jones' views are quite sound.

On motion, the society expressed its regret at the absence of Dr. T. K. Powell, of Dancyville, Tenn., who was detained from the meeting by illness.

The following officers were elected:

President—Dr. C. Travis Drennen, of Hot Springs, Ark.

Vice-President for Mississippi—Dr. Hays, of Byhalia.

Vice-President for Arkansas—Dr. J. P. Runyan, of Pine Bluff.

Vice-President for Tennessee—Dr. I. A. McSwain, of Paris.

Secretary—Dr. Richmond McKinney, of Memphis.

Treasurer—Dr. Marcus Haase, of Memphis.

On the recommendation of the Committee on Credentials the following were elected to membership :

P. M. Farrington, Memphis; R. W. Tate, Bolivar, Tenn.; W. A. Carnes, Kosciusko, Miss.; J. R. Nelson, Eureka, Tenn.; P. O. Cragg, Kerrville, Tenn.; L. W. Culberth, Stanton, Tenn.; S. L. Brister, Greenwood, Miss.; J. P. Runyan, Pine Bluff, Ark.; C. E. Ellis, Memphis; John McCrigger, Golden Lake, Ark.; N. R. Newman, Bride, Tenn.; Jno. Gray, Luxora, Ark.; Jas. L. Barton, Memphis; J. B. Pittman, Longtown, Miss.; S. P. Weigert, Rector, Ark.; T. G. Jones, Memphis; F. E. Baker, Stamps, Ark.; B. H. Cooper, Mill, Tenn.; Bruce Harkness, Memphis; Cliff C. Borum, Vincent, Ark.; Frank Ferrell, Jr., Ashland, Miss.; Ed. Chambers, Cuba, Tenn.; J. W. Laws, Memphis; Fleetwood Groover, Somerville; John C. Bell, Frayser, Tenn.; C. L. Maples, Olive Branch, Miss.; W. L. Hughston, Red Banks, Miss.; M. C. Ellis, Senatobia, Miss.; J. M. Williams, Monette, Ark.; Wm. L. Haynes, Memphis; Wm. T. Black, Memphis; R. A. Anderson, Arkabutla, Miss.; J. K. Hampson, Nodena, Ark.; J. A. Orr, Plantersville, Miss.; P. M. Kimbrough, Sheperdstown, Miss.; J. T. McClain, Shell Mound, Miss.; J. A. Mickleberry, Harrisburg, Ark.; J. J. Landreth, Air Mount, Miss.; C. W. McKnight, Palestine, Ark.; W. H. Tucker, Double Bridges, Tenn.; C. T. Candler, Marianna, Ark.; Robt. H. Mitchell, M. Moore, Memphis; W. C. Spencer, Verona, Miss.; J. H. Lackey, Ripley; N. S. Walker, Dyersburg; Wm. D. Sumpter, Nashville; J. L. Burns, Jonesboro, Ark.; F. P. Boatner, Potts Camp, Miss.; R. C. Pratt, Memphis; B. McElroy and W. B. Barner, Vanndale, Ark.; T. W. Lowry, Mississippi; T. G. Paden, Burnt Mills, Miss.; H. L. Sutherland, Rosedale, Miss.; D. A. Mohler, Crawfordsville, Ark.

THE USE OF PROTARGOL IN OPHTHALMIC PRACTICE.—E. Praun (*Centralblatt für Praktische Augenheilkunde*, May and June, '99) says that since the introduction of cocain no substance of equal importance has been introduced into ophthalmic practice. The reporter has used protargol for the past fifteen months. Its especial value over nitrate of silver is that it is free from caustic properties and can be used without the slightest danger. In many cases where both eyes are affected he has treated one with protargol and the other with silver nitrate, the results being every time in favor of the protargol. The writer uses the drug in the form of compresses, douches, powders, and salves. He has used it in all forms of conjunctivitis, with or without involvement of the cornea.—*Medicine*, November, 1899.

PROGRESS OF MEDICINE.

REMARKS ON THE DIAGNOSIS OF LOCOMOTOR ATAXIA.—Hugh T. Patrick (*Medicine*, Nov. '99) says that in all cases of pains, uneasiness, or numbness in the legs or elsewhere, failure of vision, ocular paralysis, bladder trouble, refractory constipation or rectal tenesmus, periodical vomiting or "bilious attacks," or even attacks of stomach pain without emesis, diminished sexual power, anesthesia of the face, indolent ulcer of the foot, and all cases in which the patient complains of weakness, uncertainty, or ready tire of the legs, it is incumbent on the medical adviser to examine for locomotor ataxia.

He then asks for what is the examiner to look and by what is he to be guided in reaching a diagnosis of locomotor ataxia, and briefly answers in somewhat categorical fashion as follows:

1. Loss of knee jerk.
2. Reflex iridoplegia (the Argyll-Robertson pupil).

These two are par excellence the objective signs of locomotor ataxia, and any patient who has no patellar tendon reflex, and whose pupils contract with accommodation but not to light, is in all probability suffering with this disease.

3. History of lightning pains. The typical lancinating pains of locomotor ataxia are pathognomonic. They occur at irregular, generally rather long, intervals, and rarely last more than a day or two, generally a few minutes or a couple of hours. During their continuance they are distinctly but rapidly intermittent, the individual pain lasting only from a fraction of a second to a few seconds. But the typical pains in all their perfection are almost the exception rather than the rule, the atypical burnings, borings, and aches being quite as frequent, if diagnostically less pointedly significant.

4. Disorder of the vesical function—a relative retention, a relative incontinence, or both, as already described.

5. Analgesia of the legs. To examine the tactile sense alone is to make a grave error of omission. In the vast majority of cases sensation to touch in the lower extremities is intact until the dis-

ease is well advanced, whereas the perception of painful impressions below the knee is frequently blunted in the very early stages. Having learned that the patient is instantly aware of a touch which disturbs only the hair on the legs and never reaches the skin, to find that a pin may be thrust through a fold of integument without pain is somewhat startling, but it is not an unusual finding.

6. A history or other evidence of specific disease is of major importance, provided infection has not occurred too recently. The prominent role of syphilis in the etiology of tabes may now be considered as demonstrated, but tabes is not syphilis of the spinal cord, and does not, like syphilis of the cord, appear within the first years of the infection. As a rule, locomotor ataxia begins eight or twelve years after the chancre; its appearance within five years is exceptional, but a longer interval than twelve years is far from rare. Author has now under observation a patient whose first symptoms of tabes were noticed twenty-five years after the initial sore of syphilis.

7. Ocular palsies, coming on suddenly, especially if more or less transient, are strong corroborative evidence of locomotor ataxia.

8. By far the greater number of cases of primary atrophy of the optic nerve are due to tabes, and this atrophy, with one or two indubitable signs, is quite sufficient for a diagnosis.

9. Very important in the way of confirmatory evidence are the various atypical pains and paresthesiæ, of which may be instanced numbness along the distribution of the ulnar nerve, in the legs and feet, in the perineal and anal regions or about the trunk, long-continued intercostal neuralgia, epigastric distress irrelative of meal time or choice of food, and a feeling as if the rectum contained feces or a foreign body. In the case of a female patient recently examined, this rectal discomfort was the first symptom complained of, and was so urgent that she had been faithfully treated for rectal disease and uterine displacement, and was finally sent for operation to a gynecologist, who referred her to the author.

10. In about 80 per cent. of all tabetics a more or less complete zone of anesthesia may be discovered around the body at about the mamillary level. As this anesthesia of the trunk is very rare in other diseases, its diagnostic value is considerable. It is not, however, a very early sign.

11. Analgesia of the ulnar nerve is frequent in tabes, quite rare

in the normal individual, and infrequent in all other diseases except general paresis. When, in the normal person, the ulnar nerve is forcibly pressed against the inner condyle or condyloid ridge of the humerus—a maneuver that is not difficult of execution—there is very considerable pain *at the point of pressure*. It is the absence of this pain which is diagnostic.

12. The peculiar normal testicular pain on pressure is said by Pitress to be absent in 75 per cent. of the tabetics. Author cannot confirm the figures, but he can attest the frequency of the symptom.

13. When present, fully-developed gastric crises are almost pathognomonic, and require but little confirmatory evidence. The same may be said of the typical arthropathies.

14. Diminished sexual power alone is of absolutely no value. An overwhelming preponderance of such cases are of psychic or local origin, and he has known a patient with locomotor ataxia preserve this function when he had incontinence of urine and feces, and his incoördination was so overwhelming that he could scarcely crawl. When psychic influences can be excluded sexual debility or impotence is of some diagnostic significance.

15. Before incoördination appears one can ordinarily demonstrate impairment of what is currently called the muscular sense, but what were better named sense of position or sense of motion—that is, the patient is unable to appreciate such light, passive movements of the toes or of an extremity as are at once perceived by the normal individual. This sense is naturally very acute, and the physician should know by experience how acute, before attempting to demonstrate its blunting as a sign of disease.

16. Ataxia. It may always be found by careful examination before the patient is aware of its presence.

17. Persistence of painful impressions, especially on the legs. For instance, a quick pin prick or pinch is perceived as a long-stinging or burning sensation. Author is not sure that this symptom should not be placed higher on the list, as it is rather frequent—more frequent than delayed sensation—and very characteristic.

18. Muscular hypotonus—that is, muscles are unnaturally lax and flaccid. This may be shown by “doubling up” the patient, when it is frequently found that he can be flexed without inconvenience, until the face is almost between the legs. The muscles, too, are insensible to pressure.

INFECTIVE SINUS THROMBOSIS—DETERMINING FACTORS ON ITS SYMPTOMATOLOGY AND DIAGNOSIS.—Whiting (*Jour. Amer. Med. Assn.*, Oct. 28, '99) says that the honor of first suggesting the feasibility of opening and cleansing the lateral sinus from disintegrated purulent thrombi, and of ligating the internal jugular as a prophylactic measure against the dissemination of infective particles, belongs to Zaufal, as does also the distinction of being the first operator to undertake the removal of such an accumulation, which he, four years later (1884), did.

It is, however, with the symptomatology and diagnosis of sinus thrombosis that this paper chiefly concerns itself.

The course of sigmoid sinus thrombosis may be conveniently designated for the purpose of clinical classification as comprising three stages, characterized by local and systemic manifestations. The anatomic appearances of the sinus wall, the pathologic changes in the clot, and the signs of circulatory obstruction may be demonstrated as local factors, while rapid and excessive fluctuations of temperature, frequently repeated rigors, peripheral or central metastases, etc., embrace the essential systemic symptoms.

The local and systemic conditions enumerated below constitute the various stages :

First stage. The presence of a thrombus, parietal or complete, chiefly composed of fibrin, red blood cells, exfoliated endothelium, leukocytes, and homogeneous protoplasmic cells, not having undergone disintegration and accompanied by slight or moderate pyrexia, rigors being usually insignificant or absent.

Second stage. The presence of thrombus, parietal or complete, which has undergone disintegration with resulting systemic absorption, characterized by frequent rigors and pronounced septicopyemic fluctuations of temperature.

Third stage. The presence of a thrombus, parietal or complete, which had undergone disintegration with systemic absorption, accompanied by rigors, rapid and great fluctuations of temperature, and central or peripheral embolic metastases, terminating usually in septic pneumonia, enteritis, or meningitis.

When a patient suffering with purulent otorrhea complains of severe hemicrania in connection with sudden increase or recent diminution of discharge, and simultaneously presents a degree of systemic disturbance not conformable with a tympanic or mastoid

inflammation, we should be apprehensive of some form of infective intracranial invasion, which suspicion the subsequent appearance of one or more chills with high temperature and undue exhaustion should convert into positive conviction. With the accession now of repeated chills of varying degrees of intensity, from a sensation of chilliness only to a severe and protracted rigor, associated with rapid and excessive fluctuations of temperature, profuse and colliquative perspiration, rapid pulse and respiration and great prostration, there is depicted so faithful a portrayal of the salient features of infective sinus thrombosis that the existence of almost any of the local signs, if at all pronounced, would be accepted as absolute confirmation by even the most sceptical and exacting medical attendants. The appearance of the local symptoms may be anticipated in their chronologic order, as follows: tenderness of the superior portion of the posterior cervical triangle, occipital edema (Griesinger), neuroretinitis, tenderness along the course of the internal jugular vein, most marked and earliest elicited close beneath the angle of the jaw. Edema of eyelids (Sterling), turgescence of the external jugular vein of the opposite side on pressure (Gerhardt), and lastly, a cord-like delineation of the internal jugular of the corresponding side due to purulent phlebitis extending into the neck.

One or several of the foregoing manifestations will be recognizable to a reasonably alert observer, and will supply the requisite corroborating testimony.

CONSTIPATION IN CHILDREN.—H. M. McClanahan (*Jour. Amer. Med. Assn.*, Oct. 14, '99) says the causes of constipation in infants are entirely different from those that pertain to children and adults. Want of tone in the lower bowel, due to weakness of the muscular fiber, is probably a frequent predisposing cause, but seldom is the whole cause. The real causes may be grouped under two heads: (1) the quality, quantity and method of feeding; (2) the anatomic condition of the colon.

The most frequent cause of the first group is deficiency of fat; the next in frequency is excess of casein. Bottle-fed babies more often suffer from constipation than the others. The anatomic causes are excessive length and tortuosity of the colon, and lack of muscular tone.

In the treatment the cause is of the greatest importance; increase of the fat and diminution of the casein is necessary. In bottle-fed babies this is easily done; in the breast-fed proper attention to the diet of the mother may help. The character of the stools should be noted; if light colored and dry, the casein is to be decreased, and the milk peptonized. The addition of malt extract may be of benefit. Podophyllin, in doses of $\frac{1}{40}$ to $\frac{1}{25}$ of a grain, dissolved in alcohol, is preferred by the author. When the discharges are coated with mucus, saturated solution of sodium phosphate is recommended. For the second class of cases, digital examination of the rectum is not only of diagnostic, but of decided therapeutic value. A lisle thread catheter, perforating a cork, in which it slides, is preferred to the soft catheter; it may be introduced two inches, with cork against the rectum, and, after the current is turned on, carefully pushed on through the cork as far as may be needed; this will unfold the bowel. Cases of this kind must be continuously treated for several months, until the tone of the colon is improved.

ACUTE FRONTAL SINUSITIS.—Swain (*Medicine*, Nov. '99) says that this trouble is increasing in frequency on account of the outbreaks of influenza. The frontal sinuses are probably always congested during a cold, and become infected usually on account of some anatomical peculiarity which permits or favors the entrance and confinement of the discharges to the sinuses. The symptoms are as follow:

A patient, notwithstanding he feels badly, thinks that for such a trifle as a cold in the head he will not consult the family physician. He retires with his nose feeling stopped and with greater pressure in his head than he has ever had before. Either then or in the night he suddenly feels an aching, perhaps first in the eye of the side affected. If accustomed to ocular headaches, he thinks that this is the trouble. He is frequently awakened in the night by the pain in the head, and before morning is conscious not only that his head aches, but that the forehead over the eye is aching harder than the rest, and is tender to pressure. By morning, or during the day, he frequently finds that the portion which aches hardest and is most tender is also a trifle swollen, reddened, and hotter than the other side. During the night he has been conscious that he was blowing more mucus from the nostril of the affected

side, and that it is completely stopped. During the forenoon he is unable to work, and the slightest jar, stooping, or, if he has a cough, clearing of the throat, causes severe pain in the forehead. He can not use his eyes, because of the marked watering, increased by use. Near work causes his head to ache harder. The discharge meanwhile has been increasing until along about 10 o'clock, when it reaches a maximum. Between now and afternoon, slowly or suddenly, there is a marked decrease of the pain, preceded by a flow of a large quantity of thin pus or muco-pus, frequently colored with blood when the let-up has been sudden. With the subsidence of the excruciating headache the patient feels easier every way, and by late afternoon is commonly quite comfortable. He can even read a little, and slight jars do not disturb him. In fact he feels so much better that he thinks the worst is over. He still has a cold in the head, feels feverish, and the affected side discharges freely. During the evening his confidence in his progress is somewhat shaken by occasional reminders, and before morning or on rising, the same grinding headache is there, with even more vehemence than on the previous day. His experience is now so severe that he seeks advice. If not, by afternoon he again has some relief, and sometimes without medical aid may go through several days of less and less aching, until the attack subsides, becoming soon but a disagreeable memory. Other cases seem to continue day after day with such agony that they are compelled to seek relief. Many unpleasant sequelæ of the acute trouble are to be found in neglected cases. The condition may become chronic, or the outlet may close up and alarming pressure symptoms develop.

For treatment he advises a purge, local heat, frequent snuffing of a hot saline solution up the nose, and the application of cocain and suprarenal extract to reduce the swelling at the outlet of the sinus into the nose. Rarely in acute cases, but oftener in chronic ones, an external opening must be made. After an attack the nose should be put in as near normal condition as possible (removal of polypi) to prevent a recurrence.

THE DETECTION OF THE MORPHIN HABIT.—The *Atlanta Journal-Record of Medicine* for October cites from the *Medical & Surgical Bulletin* of uncertain date the following method of detecting morphin in the urine of suspected subjects of the morphin habit:

"Collect about twenty ounces of urine from the suspected individual. If it has not an acid reaction, acidulate with dilute hydrochloric acid until blue litmus is reddened by it. Concentrate to about three ounces and let it stand in a cool place for twelve hours, then filter. To the filtrate add sufficient sodium carbonate to render it alkaline; let it stand for twelve hours, filter and collect the precipitate, and wash this with distilled water made slightly alkaline with sodium carbonate, and dry. Digest the dried precipitate with pure alcohol at a gentle heat, and filter. Evaporate the filtrate to dryness, dissolve the residue with dilute sulphuric acid, and test for morphin by the iodic-acid test, or other well-known tests. By this method morphin can be obtained, says the author (sic), from persons taking but very minute amounts of the drug."—*N. Y. Med. Jour.*, Nov. 11, '99.

BOOK REVIEWS.

Any medical book can be obtained through the Lancet at publisher's prices, postage free. Terms cash. The usual discounts are allowed.

The Nervous System and its Constituent Neurones. Designed for the use of Practitioners of Medicine and Physiology. By Lewellyn F. Barker, M.B., Tor., Associate Professor of Anatomy in the Johns Hopkins University, and Assistant Resident Pathologist to the Johns Hopkins Hospital, with two colored plates and 676 illustrations in the text. New York: D. Appleton & Co., 1899.

The author is no stranger to the American medical reader. His series of articles in the *New York Medical Journal*, which formed the nucleus to this work, are known to most readers of medicine. This is the first attempt to put together in one book an embodiment of the newer histology of the nervous system, and its application in the explanation of the nervous system, its structures and functions. To do justice to it in a short review is entirely out of the question. The author's application of the term "neuron" is to the nerve unit in its widest sense, including the whole central cell and all its processes. Considering the many epoch-making discoveries in the histology and embryology of the nervous system, largely due to the introduction of original technique by Weigert, Golgi, Nissl, Santiago, Ramon y Cajal, and others, it is quite a monumental labor to gather all these frayed threads and weave them together into an enduring fabric. Such is the work of our author. It may be urged that a work of this kind has little real value to the every-day practitioner. To this we would answer that some reference to an up-to-date book is wanted daily by the large contingent of doctors who want real information in the domain of cellular (instead of generic or typographic) neural anatomy and are willing to go to the trouble to get it. It may be that, later on, the essentials may be gleaned out for special reference, but it is difficult to see how it can be of value shorn of its completeness. To the neurologist and teacher the work is a long-sought necessity. The publishers have seemingly spared nothing to make their part worthy of the text.

A Practical Treatise on Materia Medica and Therapeutics. By Roberts Bartholow, M.A., M.D., LL.D., Professor Emeritus of Materia Medica, Therapeutics and Hygiene in the Jefferson Medical College of Philadelphia; formerly Professor of Materia Medica and Therapeutics and of the Practice of Medicine in the Medical College of Ohio; Fellow of the College of Physicians of Philadelphia, etc., etc. Tenth edition, revised and enlarged. New York: D. Appleton & Co., 1899. Price, cloth, \$5; sheep, \$6.

The many editions of this work are absolute evidence of its high standing and general use as a textbook. Schema, two parts. Part I, Modes in Which Medicines are Introduced into the Organism. Part II, The Action and Uses of Remedial Agents. The book comprises 866 pages, and is undoubtedly one of the most complete textbooks the writer has ever seen. The author has added to this edition a description of the newer remedies which, though not official, are much used, and this feature adds greatly to the value of the book. The section on prescription writing omits any mention of incompatibles, and does not make a strong enough plea for the more general use of the metric system. The sections on Aliments, Alimentation in Disease, and Hydrotherapy are very good. We commend the book very highly for its completeness, arrangement, and the effort of the author to make it thoroughly up-to-date.

An Atlas of the Bacteria Pathogenic in Man, with Descriptions of Their Morphology and Their Modes of Microscopic Examination. By Samuel G. Shattock, F.R.C.S., Joint Lecturer on Pathology and Bacteriology, St. Thomas Medical School, London, etc. With an introductory chapter on "Bacteriology" by W. Wayne Babcock, M.D., etc. Sixteen full-page colored plates. E. B. Treat & Co., New York. Price, \$1.

The most useful part of this little book is the technique given opposite the colored plates. The illustrations, on the whole, answer the purpose. The chief danger to the student is that too much importance may be attached to the depicted morphology, which, being schematic, might have been better in some instances. Some of the artistic skill wasted upon the red corpuscles on plate XVIII would have rescued the tubercle bacilli in plate XXX from the appearance of streptococci. The same bacilli on plate XXI resemble those of glanders. The diplococcus pneumoniae does not show the lancet shape from which it derives one of its names, and it is not clear why the saccaromyces albicans should be the only fungus worthy of representation. The degree of magnification is nowhere indicated. The typography and the proof reading are not up to the standard. As stated above, the text renders the book quite useful to the laboratory student. Some well-known pathogenic bacteria are not mentioned.

Saunders' Question Compend No. 4. Essentials of Medical Chemistry, Organic and Inorganic. Containing also Questions of Medical Physics, Chemical Philosophy, Analytical Processes, Toxicology, etc. Prepared especially for Students of Medicine. By Lawrence Wolff, M.D., Demonstrator of Chemistry, Jefferson Medical College; Physician to the German Hospital of Philadelphia; Member of the German Chemical Society, of the Philadelphia College of Pharmacy, etc. Fifth edition, thoroughly revised. By Smith Ely Jelliffe, M.D., PH.D., Professor of Pharmacognosy, College of Pharmacy of the City of New York; Clinical Assistant, Department of Neurology, Columbia University, New York. Price, \$1 net. Philadelphia: W. B. Saunders, 1899.

"Quiz Compend" have come to stay, and while we regard them not as a thing to be desired, and in the form of question and answer possessing many defects and few merits, we must say that the one under consideration is accurate, and seems to cover

the ground in a comprehensive manner. It has reached its fifth edition, which fact speaks for itself. If one must use a quiz compend, we do not think a better one on chemistry can be found than this.

Saunders' Question Compends No. 3. Essentials of Anatomy, Including the Anatomy of the Viscera. Arranged in the form of questions and answers. Prepared especially for Students of Medicine. By Chas. B. Nancrede, M.D., Professor of Surgery and of Clinical Surgery in the University of Michigan; Emeritus Professor of General and Orthopedic Surgery, Philadelphia Polyclinic; Senior Vice-President of the American Surgical Association; Corresponding Member of the Royal Academy of Medicine, Rome, Italy; Member of the American Academy of Medicine, etc. Sixth edition, thoroughly revised. By Fred. J. Brockway, M.D., Assistant Demonstrator of Anatomy, Columbia University, New York. Price, \$1 net. Philadelphia: W. B. Saunders, 1899.

In this book the few questions and the exhaustive answers reduce the disadvantages of the question and answer form to a minimum. The illustrations are numerous and unusually good, being taken mostly from Gray. The descriptions are as good as is compatible with brevity, and for a pocket companion we do not doubt that it will serve the student a good turn. We hardly think the practitioner wants his information so condensed. This compend is in its sixth edition.

Saunders' Question Compends No. 11. Essentials of Disease of the Skin, Including the Syphilodermata, arranged in the form of questions and answers. Prepared especially for Students of Medicine. By Henry W. Stelwagon, M.D., PH.D., Clinical Professor of Dermatology in the Jefferson Medical College; Physician to the Department for Skin Diseases, Howard Hospital; Dermatologist to the Philadelphia Hospital, etc. Fourth edition, thoroughly revised. Illustrated. Philadelphia: W. B. Saunders, 1899. Price, \$1.

This volume comprises 276 pages of questions, answers and illustrations. It is very complete, and while only intended for students will answer admirably as a ready reference book for the practitioner. The diseases of the skin are arranged under the following classification: Disorders of the Glands, Inflammations, Hemorrhages, Hypertrophies, Atrophies, New Growths, Neuroses, Parasitic Affections. We wish specially to commend the illustrations, which would do credit to a much larger and more expensive work on skin diseases.

BOOKS AND PAMPHLETS RECEIVED.

Lectures Upon the Principles of Surgery, Delivered at the University of Michigan. By Chas. B. Nancrede, A.M., M.D., LL.D., Professor of Surgery and of Clinical Surgery; Emeritus Professor of General and Orthopedic Surgery, Philadelphia Polyclinic; Senior Vice-President of the American Surgical Association; Corresponding Member of the Royal Academy of Medicine of Rome; Member of the American Academy of Medicine; Late Major and Chief Surgeon U. S. V., etc. With an Appendix Containing a Résumé of the

Principal Views held Concerning Inflammation, by Wm. A. Spitzley, A.B., M.D., Senior Assistant in Surgery, University of Michigan. Illustrated. Philadelphia: W. B. Saunders, 1899.

An American Textbook of Surgery, for Practitioners and Students. By Phineas S. Conner, M.D.; Wm. W. Keen, M.D.; Roswell Park, M.D.; Nicholas Senn, M.D.; Lewis A. Stimson, M.D.; Frederic S. Dennis, M.D.; Charles B. Nancrede, M.D.; Lewis S. Pilcher, M.D.; Francis J. Shepherd, M.D.; J. Collins Warren, M.D., and J. William White, M.D. Edited by William W. Keen, M.D., LL.D., and J. William White, M.D., PH.D. Third edition, thoroughly revised. Philadelphia: W. B. Saunders. 1899.

Saunders' Question Compend No. 3. Essentials of Anatomy, Including the Anatomy of the Viscera. Arranged in the Form of Questions and Answers. Prepared Especially for Students of Medicine. By Chas. B. Nancrede, M.D., Professor of Surgery and of Clinical Surgery in the University of Michigan; Emeritus Professor of General and Orthopedic Surgery, Philadelphia Polyclinic; Senior Vice-President of the American Surgical Association; Corresponding Member of the Royal Academy of Medicine, Rome, Italy; Member of the American Academy of Medicine, etc. Sixth edition, thoroughly revised. By Fred. J. Brockway, M.D., Assistant Demonstrator of Anatomy, Columbia University, New York, N. Y. Philadelphia: W. B. Saunders, 1899.

Essentials of Physical Diagnosis of the Thorax. By Arthur M. Corwin, A.M., M.D., Instructor of Physical Diagnosis in Rush Medical College; Attending Physician to the Central Free Dispensary, Department of Rhinology, Laryngology, and Diseases of the Chest. Third edition, revised and enlarged. Philadelphia: W. B. Saunders, 1899.

A Textbook of Embryology. For Students of Medicine. By Jno. Clement Heisler, M.D., Professor of Anatomy in the Medico-Chirurgical College, Philadelphia. With 190 illustrations, 26 of them in colors. Philadelphia: W. B. Saunders, 1899.

Symposium on the Pathology of the Diseases of the Cardio-Vascular System—The Blood in Diseases of the Cardio-Vascular System. By Alfred Stengel, M.D. (Reprinted from the Proceedings of the Pathological Society of Philadelphia.)

Medical Education. By Charles W. Burr, M.D., of Philadelphia. (Reprinted from *Philadelphia Medical Journal*, October 21, 1899.)

The Surgical Treatment of Uterine Fibroids. By H. A. Royster, A.D., M.D., Raleigh, N. C.

NEWS AND NOTES.

DR. HENRY H. MUDD, of St. Louis, is dead.

DR. BATTLE MALONE has returned from a post graduate course in New York.

DR. W. L. ESTES AND WIFE, of South Bethlehem, Pa., were in the city during November.

AN ordinance making vaccination compulsory has been introduced into the City Council.

SURGEON-GENERAL STERNBERG has recommended the establishment of an army nurse corps as a permanent feature of the service. There are now 230 nurses in the service.

DR. H. S. WOLFF has completed his term as resident physician at the City Hospital and moved back to his former office with Dr. Posert in the Southern Express Building.

THE Southern Surgical and Gynecological Association will meet in New Orleans on Dec. 5, 6 and 7. There are forty-three papers on the program and a very interesting meeting is expected. The St. Charles Hotel will be the headquarters.

TWO CASES of bubonic plague are reported at the quarantine station in New York. The patients are the captain and cook of the *J. H. Taylor*, from Santos, Brazil, which arrived at quarantine on Nov. 18. The health officials are confident of their ability to confine the disease and thoroughly disinfect the vessel and cargo.

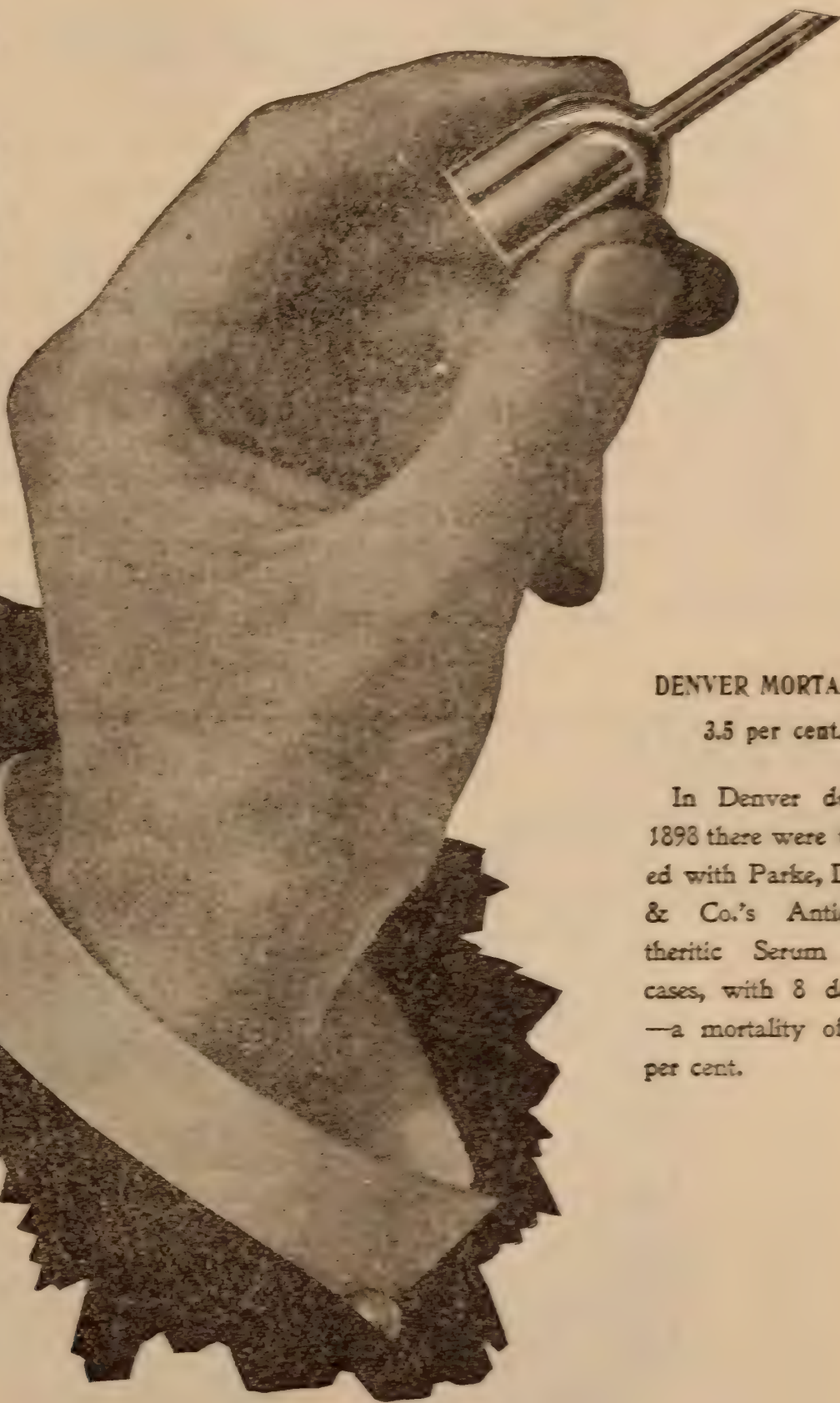
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CLINICAL NOTES.

The following is an interesting report of a dispensary case of consumption: Mary Flaherty, Irish, aged 34; seen Oct. 4, 1897: Case of tubercular phthisis, by microscopical and physical examination. Already of two years progress under various treatments. Previous weight 126½ pounds, present 94. Onset had been insidious, began with dyspepsia, irritable heart, light, dry, hacking cough which was referred to the stomach; the diagnosis of her physician being anemia with atonic dyspepsia. Two months later the cough had increased in severity, with scanty, glairy expectoration, loss of weight, impaired muscular strength, pallor, and one rather severe hemorrhage, also sharp pain below the clavicles. Such had been condition of patient up to time of admission at Sound View; careful examination revealed softening in progress, cough in severity with free expectoration blood-streaked, and tubercle bacilli visible under microscope. There was dyspnea on increased exertion, morning chills and evening fever, night sweats, diarrhea, much emaciation and weakness. There was considerable edema of feet, indicating disturbed circulation. Inspection showed depressions in supra-clavicular and infra-clavicular regions; palpitation, vocal fremitus much increased; percussion, dullness over right apex and upper lobe, with circumscribed spots of amphoric sound; auscultation, vesiculo-bronchial breathing associated with sub-crepitant and moist

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rales. The prognosis was decidedly unfavorable. The patient was put to bed after having been thoroughly bathed, and attention was turned to her secretions. The stomach was gently washed out with Thiersch solution No. 2. Was put on a prescription of one drop pure beechwood creasote, two drops tincture iodine and six drops oil of cinnamon, in iced water, every three hours, also one-eighth grain biniodide of mercury rubbed up with bicarbonate of soda, every three hours. The stomach being in a sensitive and delicate condition, I commenced bovine in small doses of thirty drops in iced grape juice, hourly, for the first three days; then increasing it to a teaspoonful every two hours, and after ten days more, to a tablespoonful every three hours. By the 28th the patient's stomach was so much strengthened that she was able to retain without inconvenience, a wineglassful every four hours. The biniodide of mercury and bicarbonate of soda were then stopped, but the other prescription was continued, and on November 10th the creasote was increased to three drops; on the 20th to five minims, now in capsules; on December 16th diminished to three minims. At the latter date patient was giving every evidence of restored health; cough was reduced to a mere occasional clearing of the throat; scarcely any expectoration, and that only rising in the morning. The microscope revealed not the slightest trace of tubercle bacilli in sputum. The morning chilliness, evening fever and night sweats were no more. Her appetite, digestion and sleep were normal. Her weight was 119 $\frac{3}{4}$ pounds. There remained some dullness over the right apex, but auscultation showed complete encystment of the tubercle. She was discharged December

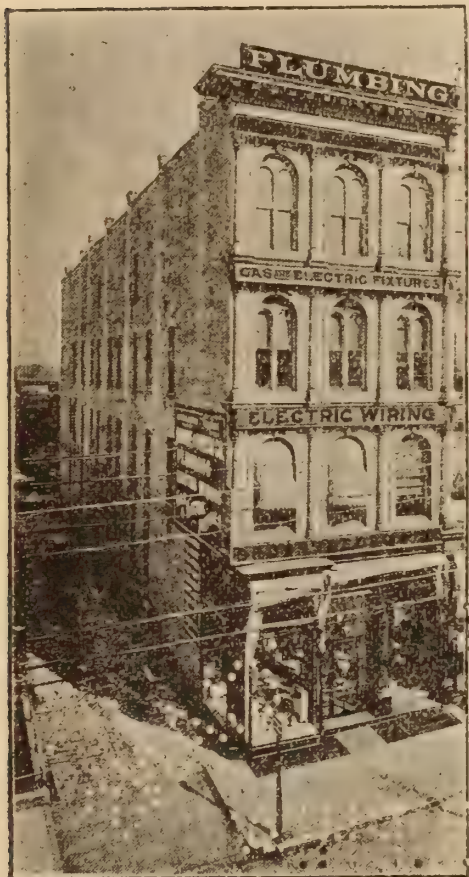
27th with every indication of cure confirmed. Will report for examination and advice twice a week, so that there will be no difficulty in watching and reporting the sequel of the case.—*Wisconsin Medical Recorder*.

“KEEPING COWS FOR PROFIT” is the well chosen title of the newest work on practical dairying to come under our notice. We understand that a large issue of this little publication is being gratuitously circulated with the compliments of The De Laval Separator Co., 74 Cortlandt St., New York, which concern offers to send a copy to every reader of the LANCET upon request.

The book treats of dairying as a manufacturing *business* and discusses its problems from the standpoint that every dairy farmer is just as much a *business man* as though engaged in any other manufacturing or commercial undertaking. The book begins with a review of the history of dairying, shows the relative percentages of the various component parts of the different dairying products, takes up the production and marketing of such products in one form after another, and closes with a pertinent reference to private dairying. One of the most interesting chapters is that devoted to skim-milk, of which the use of the centrifugal cream separator has made a new by-product in dairying, with a much wider field of usefulness than was either thought of or possible in the practice of

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gravity setting. We find many ways in which skim-milk is being used profitably, and that for some purposes it is as nutritive and useful as the whole-milk itself. This is mainly due to its freshness and sweetness in centrifugal separation, since in gravity setting the bacterial growth in skim-milk develops rapidly and the milk sugar, which is an extremely nutritious ingredient in its natural state, changes into an acid which is harmful rather than beneficial to both the animal and human stomach. While the purpose of its distribution is no doubt an advertising one, in a considerable degree, there is much that is commendable in the little book, and we think it bears out the introductory statement that it is dedicated to every owner of a cow in the hope that it may afford some beneficial hint or suggestion to all who may take the trouble to look over its pages.

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